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EDITED BY W. T. BLANFORD.

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## MOTHS.—Vol. IV.

BY

SIR G. F. HAMPSON, BART.

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# PREFATORY NOTE.

WITH the present volume the first group of Indian Invertebrata included in the present Series is completed. Of the remaining Lepidoptera, the Butterflies are being fully described elsewhere, whilst the Tineas, Tortrices, and a few other lowly organized forms are not sufficiently known for a general description to be practicable at present. The magnitude of the work is shown by the fact that the four volumes of Moths, with the Appendix to the last volume, contain descriptions of 5618 species regarded as valid, exclusive of races or subspecies.

The number of Indian Insects and other Invertebrata is so large, and that of students and collectors of the majority of the groups so small, that it is very difficult to deal with most of the orders. I am therefore fortunate in being able to announce that the next volume (to be published, it is hoped, early in 1897) will commence the description of the Hymenoptera, and contain the Bces and Wasps by Col. C. T. Bingham.

W. T. BLANFORD.

October 1896.

# PREFACE.

The Fourth Volume of the Moths in the 'Fauna of British India' deals with the subfamilies, genera, and species of Indian *Pyralidæ*.

In the lowest subfamily, the *Pyraustinæ*, the least specialized form is *Simæthistis tricolor*, with vein 5 of each wing from the middle of the discocellulars, all the subcostals of the fore wing from the cell, vein 8 of the hind wing free, and the palpi porrect with the 3rd joint naked—a combination of generalized characters which would almost allow this species to be regarded as the ancestor of the whole family. Almost all other *Pyralidæ* have veins 8 and 9 of the fore wing stalked. From *Simæthistis* the *Pyraustinæ* diverge in two directions—firstly, to forms with porrect triangularly scaled palpi, the 3rd joint concealed, from low down in which series originated the *Scopariinæ*, with raised tufts of scales on the fore wing; and, secondly, to forms with upturned palpi, the 3rd joint long and acuminate. From the lower *Pyraustinæ*, with porrect palpi and the 3rd joint naked, arose also the other groups of *Pyralidæ*:—

The *Hydrocampinæ* with vein 10 of the fore wing stalked with 8 and 9:

The *Pyralinæ*, with vein 7 stalked with 8 and 9, and vein 8 of the hind wing free; giving rise to (*a*) the *Endotrichinæ*, with vein 8 of the hind wing anastomosing with 7, from which arose the *Chrysauginæ*, with the maxillary palpi absent; and (*b*) the *Epipaschiinæ*, with raised tufts of scales on the fore wing and vein 8 of the hind wing either free or anastomosing with 7, giving rise to the *Phycitinæ*, with vein 7

of the fore wing absent and the median nervure of the hind wing pectinate above: from these again spring the *Anerastiinæ,* with the proboscis absent:

The *Schœnobiinæ,* with the proboscis absent:

And the *Crambinæ,* with the median nervure of the hind wing pectinate above, and the maxillary palpi triangularly dilated with scales; from this subfamily were developed the *Galleriinæ,* with the maxillary palpi filiform or very slightly dilated. (See Phylogeny, p. 1.)

The Appendix contains the additions made to the list of Indian species since the volumes dealing with the families to which they belong were published, and is complete up to date, with the exception of a few species of *Geometridæ* and *Pyralidæ* described by Mr. Warren, in the 'Annals and Magazine of Natural History' and the 'Novitates Zoologicæ,' too late to be included: these will be dealt with in the first of a series of supplementary papers which I hope to publish annually in the Proceedings of one of the Scientific Societies, so as to keep pace with the development of the subject. There will also be found in the Appendix a number of corrections which I have been enabled to make whilst working at the fresh material sent to me from time to time. All criticisms published or made to me personally have been carefully considered, and where acceptable the alterations suggested are adopted. I have also corrected, where necessary, the position assigned to species described by Mr. Moore in the Atkinson collection, as, by the kindness of Dr. Staudinger, I have had the opportunity of seeing the types of the species with which I was unacquainted, and there now remain but very few described Indian species which I have not examined.

The publication of the present volume brings to a conclusion the whole of the original scheme for the work on Indian Moths, with the addition of the Pyralid subfamilies *Galleriinæ, Crambinæ, Schœnobiinæ, Anerastiinæ,* and *Phycitinæ,* leaving only the Tortrices, Tineas, and Plumes for future study.

The Council of the Zoological Society have kindly allowed me the use of figures 10, 11, and 13 to 33, which appeared in a paper in the 'Proceedings' for 1895 on the classification of the *Schœnobiinæ* and *Crambinæ*; and the Council of the Entomological Society have lent me figures 241, 243, 244, 248, 251, 253, 254, 259, 262, 268, 270, 272, 274, 279, 282, and 287, which appeared in their 'Transactions' for 1895.

I have again to thank all those who have so kindly assisted me during the progress of the work—both the Collectors in India, who have liberally supplied me with specimens and information, and the owners of Collections in England, who have put the whole of their material freely at my disposal. The names of most of those who have aided me have been mentioned in the prefaces to the other three volumes, and I have also to express my thanks to Surg.-Col. J. G. Pilcher in Sikhim and Mr. J. Pole in Ceylon, who have sent to me valuable collections during the last two years.

G. F. HAMPSON.

October 15th, 1896.

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# APPENDIX.

[Names in Roman characters are those of genera and species described in the Appendix.]


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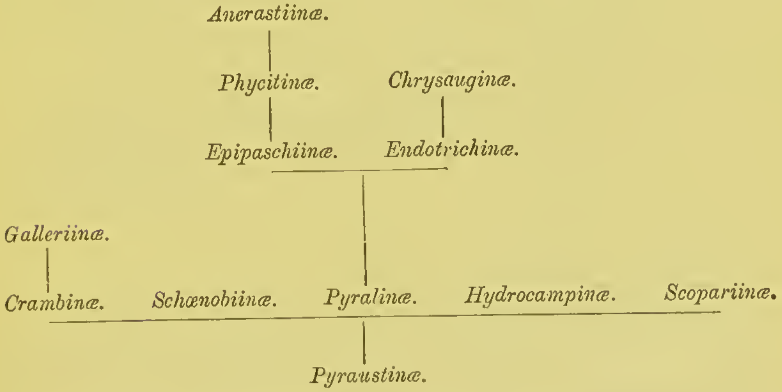
# Family PYRALIDÆ.

Proboscis and maxillary palpi usually developed. Fore wing with vein 1 *a* usually free, sometimes forming a fork with 1 *b*; 1*c* absent; 5 from near lower angle of cell; 8, 9 almost always

Fig. 1.—Larva and Pupa of *Filodes fulvidorsalis*. $\frac{1}{1}$.

stalked. Hind wing with vein 5 usually from near lower angle of cell; 8 approximated to 7 or anastomosing with it beyond the end of cell; 1 *a*, *b*, *c* present; frenulum developed.

Phylogeny of the Pyralidæ.




Moths usually of slender build, with long thin legs. Larva elongate, with five pairs of prolegs. Pupa with segments 9–11, sometimes also 8 and 12, movable, not protruding from cocoon on emergence.

*Key to the Subfamilies.*

A. Hind wing with the median nervure pectinated on upperside.
  *a*. Fore wing with vein 7 present *.
    $a'$. Maxillary palpi not triangularly scaled . . . . . . . . . . . . . . . . . . . . . . . . 1. *Galleriinæ.*
    $b'$. Maxillary palpi triangularly scaled . 2. *Crambinæ.*
  *b*. Fore wing with vein 7 absent.
    $a'$. Proboscis absent . . . . . . . . . . . . . . . . 4. *Anerastiinæ.*
    $b'$. Proboscis present . . . . . . . . . . . . . . 5. *Phycitinæ.*
B. Hind wing with the median nervure not pectinated on upperside †.
  *a*. Proboscis absent . . . . . . . . . . . . . . . . . . 3. *Schœnobiinæ.*
  *b*. Proboscis present ‡.
    $a'$. Fore wing with vein 7 stalked with 8, 9.
      $a^2$. Fore wing with tufts of raised scales in the cell . . . . . . . . . . . . 6. *Epipaschiinæ.*
      $b^2$. Fore wing with no tufts of raised scales in the cell.
        $a^3$. Hind wing with vein 8 anastomosing with 7.
          $a^4$. Maxillary palpi absent . . . . 7. *Chrysauginæ.*
          $b^4$. Maxillary palpi present . . . . 8. *Endotrichinæ.*
        $b^3$. Hind wing with vein 8 free . . 9. *Pyralinæ.*
    $b'$. Fore wing with vein 7 from the cell.
      $a^2$. Fore wing with vein 10 stalked with 8, 9 § . . . . . . . . . . . . . . . . . . 10. *Hydrocampinæ.*
      $b^2$. Fore wing with vein 10 from the cell.
        $a^3$. Fore wing with tufts of raised scales in the cell . . . . . . . . . . 11. *Scopariinæ.*
        $b^3$. Fore wing with no raised tufts of scales in the cell . . . . . . . . 12. *Pyraustinæ.*

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* Except in *Culladia*.

† Except in *Macarctæra*.

‡ Except in a few genera of *Pyralinæ*, to be distinguished from the *Schœnobiinæ* by vein 8 of the hind wing being free.

§ Except in a small percentage of specimens of *Nymphula* and *Oligostigma* and a few non-Indian species, to be distinguished from nearly all *Pyraustinæ* by their long maxillary palpi dilated at extremity.

## Subfamily GALLERIINÆ.

Proboscis usually well developed; maxillary palpi filiform. Fore wing with vein 1 *a* separate from 1 *b*; 7 present. Hind wing with the median nervure pectinated on upperside; 7 usually anastomosing with 8; the frenulum multiple in female.

*Key to the Genera.*

A. Fore wing with veins 7, 8 stalked.
  *a*. Hind wing with three veins arising from median nervure.
    *a'*. Hind wing with the cell open, vein 7 anastomosing with 8 to about two-thirds of wing
      *a²*. Fore wing with vein 10 stalked with 7, 8, 9 .................. 1. TRACHYLEPIDIA, p. 3.
      *b²*. Fore wing with vein 10 from cell.
        *a³*. Fore wing with vein 7 arising from 8 after 9 ............ 2. THAGORA, p. 4.
        *b³*. Fore wing with vein 7 arising from 8 before 9 .......... 3. MUCIALLA, p. 5.
    *b'*. Hind wing with the cell closed; vein 7 anastomosing with 8 almost to apex .......................... 4. ACHROIA, p. 6.
  *b*. Hind wing with four veins arising from median nervure.
    *a'*. Hind wing with the cell open.... 5. LAMORIA, p. 6.
    *b'*. Hind wing with the cell closed.
      *a²*. Palpi clothed with very long hair; fore wing with the outer margin evenly curved .............. 6. ACARA, p. 7.
      *b²*. Palpi smoothly scaled; fore wing with the outer margin angled . 7. GALLERIA, p. 8.
B. Fore wing with vein 7 arising from cell; hind wing with four veins from median nervure, 7 joined to 8 by an oblique bar; the head with enormous frontal swelling .................. 8. BALÆNIFRONS, p. 9.

### Genus TRACHYLEPIDIA.

Trachylepidia, *Rag. Ann. Soc. Ent. Fr.* 1887, p. 260.

Type, *T. fructicassiella*, Rag.

*Range.* Syria; Egypt; Punjab.

Palpi of male minute, of female projecting about the length of head; maxillary palpi filiform; antennæ of male simple, with a tuft on basal joint; frons with a conical tuft. Fore wing with the costa arched; the outer margin nearly straight; vein 3 from before angle of cell; 4 stalked with 5 in female, in male from angle of cell which is produced; 6 from upper angle; 8, 9, 10

given off at intervals from 7; 11 free. Male with a large glandular swelling at base of costa below; the cell narrow and clothed with hair. Hind wing with the cell open; vein 4 absent; 7 anastomosing with 8.

4142. **Trachylepidia fructicassiella**, *Rag. Ann. Soc. Ent. Fr.* 1887, p. 260.

Grey-brown. Fore wing with the median area darker and clothed with rough erect scales, especially towards costa; indistinct ante- and postmedial lines of raised dark scales, the former oblique and obsolete towards costa, the latter oblique and angled inwards on vein 5; a very indistinct discocellular spot; a marginal series of specks. Hind wing dull brownish yellow.

Fig. 2.
*Trachylepidia fructicassiella.* ½.

The larva bores in the pods of *Cassia fistula.*

*Hab.* Beyrout; Egypt; Punjab. *Exp.*, ♂ 20–27, ♀ 29–34 millim.

## Genus **THAGORA.**

Thagora, *Wlk. Cat.* xxvii, p. 205 (1863).

Type, *T. figurana*, Wlk.

*Range.* Ceylon; Borneo; Java.

Differs from *Mucialla* in veins 8 and 9 being given off at intervals from 7. Male with a fascia of black scales on underside of fore wing in and beyond cell, and a similar subcostal fascia on upperside of hind wing.

4143. **Thagora castanella**, n. sp.

♂. Very pale chestnut. Fore wing with curved antemedial line, the area beyond it suffused with rufous; a black discocellular speck; an obliquely curved postmedial line; the fasciæ on underside of fore wing and upperside of hind wing deep black.

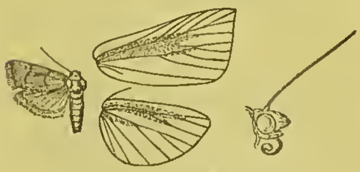

Fig. 3.
*Thagora castanella*, ♂. ½.

♀ with the base and costa of fore wing deeper rufous, the rest of the wing pale; the ante- and postmedial lines and discocellular speck almost obsolete.

*Hab.* Colombo, Ceylon (*Pole*). *Exp.*, ♂ 18, ♀ 20 millim. Type in B.M.

4144. **Thagora figurana**, *Wlk. Cat.* xxvii, p. 205; *Hmpsn. Ill. Het.* ix, pl. 157, fig. 8; *C. & S.* no. 511.

♀. Head and thorax pale brown; abdomen whitish. Fore wing emerald-green, the base and costa brown; an antemedial brown speck below costa and another in cell; an oblique series of brown patches from discocellulars to inner margin; postmedial and submarginal minutely dentate brown bands from vein 6 to inner margin, the former excurved between veins 5 and 2; cilia brown. Hind wing white; the margin tinged with brown.

*Hab.* Ceylon; Java. *Exp.* 24 millim.

## Genus MUCIALLA.

Mucialla, *Wlk. Cat.* xxxv, p. 1739 (1866).

Type, *M. mundella*, Wlk., from Borneo.

*Range.* Bhután; Khásis; Ceylon; Borneo; Sula; New Guinea.

Differs from *Lamoria* in vein 4 of the hind wing being absent.

4145. **Mucialla rufivena**, *Wlk. Cat.* xxx, p. 960.
Lamoria ruptilinea, *Wlk. Cat.* xxxv, p. 1723.

Pale brown; yellowish or reddish brown. Fore wing with more or less developed annuli at middle and end of cell connected by a white streak; sometimes with a spot in base of cell also joined by the white streak; the inner margin, vein 1, the interno-median interspace, and veins beyond lower angle of cell streaked with crimson; a dark marginal line. Hind wing pale fuscous, dull yellow, or orange-yellow.

Fig. 4.—*Mucialla rufivena*, ♂. ½.

*Hab.* Ceylon; Shán States; Borneo; New Guinea. *Exp.* 26–30 millim.

4146. **Mucialla semifœdalis**, *Wlk. Cat.* xxxiv, p. 1439.

♀. Head pale; thorax greenish; abdomen yellow. Fore wing olive-green, with black spots in and at end of cell connected by a white mark; a dark marginal line. Hind wing yellow; the apical area greenish; a fine dark marginal line.

*Hab.* Bhután; Sula. *Exp.* 28 millim.

4147. **Mucialla unicolorella**, n. sp.

♀. Uniform pale olive-green. Fore wing with few scattered black scales; small raised specks of black scales at middle and end of cell; an indistinct minutely dentate curved postmedial line. Hind wing slightly paler.

♂. With the fore wing long, narrow, produced and acute at apex; a rufous speck in cell and another on discocellulars; cilia rufous.

*Hab.* Bhután, 2500 ft. (*Dudgeon*); Khásis. *Exp.* 34 millim. Type in B.M.

## Genus ACHROIA.

Achroia, *Hübn. Verz.* p. 163 (?1818).

Type, *A. grisella*, Fabr.

*Range.* Palæarctic, Oriental, and Australian regions.

Palpi minute and porrect; maxillary palpi minute; frons rounded; antennæ minutely serrate; tibiæ roughly scaled. Fore wing short and rounded; male with a glandular fold fringed with hair at base of costa below; vein 3 from near angle of cell; 4, 5 stalked; 6 from below upper angle; 7, 8 stalked, 9 stalked with 7, 8, from cell, or abnormally absent; 10 from cell; 11 absent. Hind wing with the apex acute; vein 2 from close to angle of cell; 4 absent; 3, 5 stalked; 6, 7 stalked; 7 anastomosing with 8 to near apex.

4148. **Achroia grisella**, *Fabr. Ent. Syst.* iii, pt. 2, p. 289.
Achroia cinereola, *Hübn. Samml. eur. Schmett., Bombyces*, fig. 91.

Uniform grey-brown; the head yellow.

Fig. 5.—*Achroia grisella*, ♂. 1/1.

The larva feeds on the wax in bee-hives.

*Hab.* Europe; Calcutta; Australia. *Exp.* 18–20 millim.

## Genus LAMORIA.

Lamoria, *Wlk. Cat.* xxvii, p. 87 (1863).

Type, *L. planalis*, Wlk.

*Range.* Palæarctic, Ethiopian, and Oriental regions.

Palpi of male minute; of female projecting about the length of head and downcurved at extremity; maxillary palpi filiform; frons with a conical tuft; antennæ simple. Fore wing of male with a large glandular swelling at base of costa below; vein 3 from before angle of cell; veins 4, 5 from angle, which is much produced; 8, 9 stalked from 7; 10, 11 free; female with vein 3 from angle of cell, which is not produced; 4, 5 stalked. Hind wing with the cell open; veins 2, 3, 4, 5 at regular intervals; 7 anastomosing with 8.

4149. **Lamoria planalis**, *Wlk. Cat.* xxvii, p. 88; *C. & S.* no. 4734.
Acrobasis imbella, *Wlk. Cat.* xxx, p. 955.
Melissoblaptes bipunctanus, *Moore, Lep. Ceyl.* iii, p. 375 (*nec Haw.*).

Pale brown. Fore wing irrorated with fuscous; traces of an irregularly dentate antemedial dark line; a speck, spot, or small

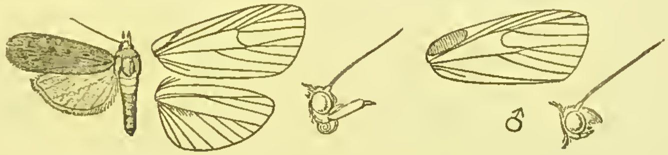


Fig. 6.—*Lamoria planalis*, ♀. 1/1.

annulus in cell and larger discocellular spot or annulus; a highly dentate, postmedial, more or less prominent line oblique from costa to vein 4, where it is sharply angled, then inwardly oblique; a marginal series of black specks. Hind wing pale brownish.

*Hab.* S. Africa; throughout India, Ceylon, and Burma. *Exp.* 30–34 millim.

4150. **Lamoria anella**, *Schiff. Wien. Verz.* p. 135; *C. & S.* no. 4732.
Tinea sociella, *Hübn. Samml. eur. Schmett., Tin.* fig. 24 (*nec Linn.*).
Pempelia adaptella, *Wlk. Cat.* xxvii, p. 74; *C. & S.* no. 4631.

Head, thorax, and abdomen grey-brown. Fore wing grey-brown, often entirely suffused with red or fuscous; an indistinct highly dentate antemedial line; a more or less developed speck in cell and discocellular spot; a highly dentate postmedial line sharply angled on vein 4 and often reduced to streaks on the veins; a marginal series of specks. Hind wing pale semihyaline, suffused with fuscous towards margin.

*Hab.* Europe; Africa; Afghanistan; Punjab; Poona; Ceylon. *Exp.*, ♂ 18–28, ♀ 30–40 millim.

## Genus ACARA.

Acara, *Wlk. Cat.* xxvii, p. 198 (1863).
Ertzica, *Wlk. Cat.* xxxv, p. 1768 (1866).

Type, *A. morosella*, Wlk.

*Range.* Sylhet; Ceylon; Java.

Palpi of male short and upturned, fringed with very long hair in front reaching far in front of head; of female with the 2nd joint oblique, reaching above vertex of head and fringed with very long hair in front, the 3rd long and porrect; maxillary palpi filiform; frons with a long straight tuft of hair; antennæ short and simple, in male with a tuft of hair from basal joint; mid and hind tibiæ fringed with hair. Fore wing with the apex produced and acute; male with a very large glandular fold at base of costa below:

veins 2, 3, 4, 5 given off at regular intervals in male, the lower angle of cell being very much produced, in female less produced and veins 4, 5 from the angle; discocellulars very highly angled; 6 from upper angle; 8 and 9 given off at intervals from 7; 10 and 11 free. Hind wing with the cell short; the discocellulars highly angled and the lower angle produced; vein 3 from angle; 4, 5 shortly stalked; 6, 7 stalked; 8 free.

4151. **Acara morosella**, *Wlk. Cat.* xxvii, pl. 199; *C. & S.* no. 4667.
Ertzica maximella, *Wlk. Cat.* xxxv, p. 1768.

Pale red-brown; abdomen suffused with fuscous. Fore wing irrorated with fuscous; traces of an antemedial line, oblique from costa to below median nervure, where it is angled; a dark speck

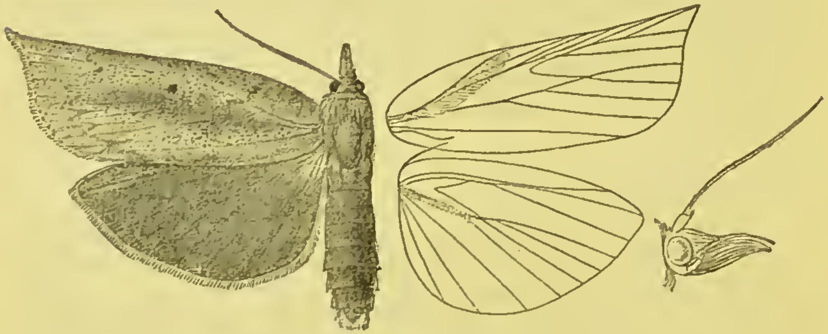

Fig. 7.—*Acara morosella*, ♀. ½.

in end of cell and discocellular speck; an indistinct minutely dentate postmedial line excurved between veins 5 and 2; a marginal series of black specks. Hind wing very dark brown; the cilia grey at tips.

*Hab.* Sylhet; Ceylon; Java. *Exp.*, ♂ 50, ♀ 56–86 millim.

## Genus GALLERIA.

Galleria, *Fabr. Ent. Syst. Suppl.* p. 462 (1798).

Type, *G. mellonella*, Linn.
*Range.* Neotropical and Palæarctic regions; W. India.

Palpi of male minute; of female porrect and extending just beyond the sharp frontal tuft; maxillary palpi filiform; antennæ simple, in male with a tuft on basal joint. Fore wing with the costa highly arched; the outer margin excised from apex to vein 2, where it is angled, then very oblique; veins 2, 3, 4 at intervals before angle of cell; 5 from angle; 6 from upper angle; 7, 8 stalked from before angle; 9, 10, 11 free; female with vein 4 from angle of cell, 9 given off from 7, 8. Hind wing with vein

2 from angle of cell; 3 approximated for nearly half its length to 4, 5, which are on a long stalk; 6, 7 from upper angle, which is very much produced, 7 anastomosing slightly with 8.

4152. **Galleria mellonella**, *Linn. Syst. Nat.* (ed. x), i, p. 537; *C. & S.* no. 4725.

Phalæna cereana, *Linn. Syst. Nat.* (ed. xii), i, p. 874.

Fig. 8.—*Galleria mellonella*, ♂. 1/1.

Head, thorax, and abdomen ochreous brown. Fore wing grey, irrorated slightly with black and purple; the inner area ochreous, variegated with purple and black; a ridge of raised rough scales below the cell. Hind wing fuscous brown; the base and inner area paler, or almost wholly pale.

The larva is parasitic in bee-hives.

*Hab.* Europe; Syria; Poona; West Indies. *Exp.* 20–40 millim.

## Genus BALÆNIFRONS, nov.

Type, *B. homopteridia*, Hmpsn.

*Range.* Burma.

Head enormously swollen and produced to a large rounded frontal cone, grooved on lower side, the proboscis and filiform maxillary palpi arising from its middle; palpi slender, curved and extending to end of frontal projection; antennæ simple; legs smoothly scaled. Fore wing broad and rounded; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 from upper angle; 8, 9 stalked; 10 free; 11 curved. Hind wing with lower part of cell very much produced; vein 3 from before angle; 4, 5 well separated at origin; 6, 7 stalked; 7 well separated from 8 and joined to it by an oblique bar; retinaculum bar-shaped.

4153. **Balænifrons homopteridia**, n. sp.

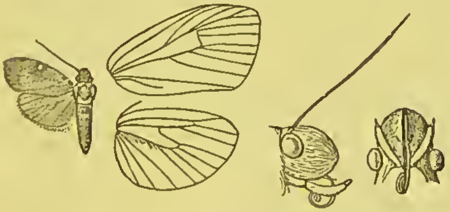

Fig. 9.—*Balænifrons homopteridia*, ♂. 1/1.

♂. Head and thorax purplish red and ochreous; abdomen ochreous, with some red and fuscous on dorsum. Fore wing purplish red, irrorated with ochreous; a diffused dusky shade arising from costa at middle diffused over the disk. Hind wing yellowish brown.

Another specimen has a broad irregular yellow subbasal band on the fore wing and two postmedial patches on the costa.

*Hab.* Moulmein; Rangoon. *Exp.* 20 millim. Type in B.M.

## Subfamily CRAMBINÆ.

Proboscis well developed or minute; palpi porrect; the maxillary palpi well developed and dilated with scales at extremity. Fore wing with vein 7 present*; vein 1 *a* separate from 1 *b*. Hind wing with the median nervure pectinated on upperside; vein 7 usually anastomosing with 8.

The larvæ are usually grass or reed feeders.

*Key to the Genera.*

A. Hind wing with vein 6 from upper angle of cell or stalked with 7.
- *a*. Palpi hardly reaching beyond the frons, which is produced to a corneous point .......................... 9. ESCHATA, p. 28.
- *b*. Palpi extending two or three times length of head.
  - *a'*. Fore wing with veins 8, 9 stalked; 7 separate.
    - *a*². Hind wing with vein 4, 5 from a point or stalked.
      - *a*³. Frons rounded and not produced.................... 4. PLATYTES, p. 19.
      - *b*³. Frons with a conical projection.
        - *a*⁴. Fore wing with veins 6, 7 stalked ................ 6. STENOCHILO, p. 24.
        - *b*⁴. Fore wing with veins 6, 7 from cell.
          - *a*⁵. Palpi about three times length of head; fore wing with the apex produced .............. 8. CHILO, p. 26.
          - *b*⁵. Palpi about twice the length of head; fore wing with the apex rounded; male with a slight fovea in the cell . 5. EROMENE, p 23
    - *b*². Hind wing with veins 4, 5 well separated at origin; fore wing with the outer margin indented below apex ................ 3. DIPTYCHOPHORA, p. 18.
  - *b'*. Fore wing with veins 7, 8, 9 stalked.
    - *a*². Both wings with vein 3 absent; fore wing with the outer margin indented at vein 5 .......... 10. MESOLIA, p. 30.

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* Except in *Culladia*.

$b^2$. Both wings with vein 3 present.
  $a^3$. Fore wing with vein 10 from the cell .................. 2. CRAMBUS, p. 12.
  $b^3$. Fore wing with vein 10 staked with 7, 8, 9 .............. 7. MACROCHILO, p. 25.
$c'$. Fore wing with vein 7 absent .... 1. CULLADIA, p. 11.
B. Hind wing with vein 6 from below angle of cell and rudimentary.
  *a*. Fore wing with vein 7 from the cell.
    *a'*. Hind wing with vein 5 present .. 13. CHARLTONA, p. 35.
    *b'*. Hind wing with vein 5 absent.... 11. SURRATHA, p. 31.
  *b*. Fore wing with vein 7 stalked with 8, 9 .......................... 12. ANCYLOLOMIA, p. 33.

## Genus CULLADIA.

Culladia, *Moore, Lep. Ceyl.* iii, p. 383 (1886).

Type, *C. admigratella*, Wlk.
*Range*. Madagascar; China; S. India; Ceylon; Borneo.
Palpi porrect, thickly scaled and extending about twice the length of head; maxillary palpi triangularly scaled; frons rounded; antennæ of male somewhat thickened and flattened; spurs long and equal. Fore wing long and narrow; vein 3 from angle of cell; 6 from below upper angle; 7 absent; 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 6, 7 from upper angle; 7 anastomosing with 8.

SECT. I. Both wings with veins 4, 5 stalked.

4154. **Culladia admigratella**, *Wlk. Cat.* xxvii, p. 192; *C. & S.* no. 4686.
Araxes cæsella, *Wlk. Cat.* xxvii, p. 193; *C. & S.* no. 4687.
Scopula hastiferalis, *Wlk. Cat.* xxxiv, p. 1473.

Head and thorax white marked with fuscous; palpi banded with fuscous; abdomen pale fuscous. Fore wing white suffused with fuscous; an indistinct postmedial line running out to an angle on vein 5, retracted along vein 2 to below middle of cell, then bent outwards again, the area beyond it whiter; an indistinct highly dentate submarginal line. Hind wing whitish; the apical area tinged with fuscous.

Fig. 10.—*Culladia admigratella*, ♂. ⅔.

*Hab.* China; Ceylon; Borneo. *Exp.* 16 millim.

Sect. II. Both wings with veins 4, 5 coincident.

4155. **Culladia suffusella**, *Hmpsn. P. Z. S.* 1895, p. 925.

Head, thorax, and abdomen brownish fuscous. Fore wing fuscous; the costal area brownish; the veins beyond lower angle of cell streaked with fuscous; traces of a submarginal series of dark specks; a marginal series of dark specks. Hind wing pale; the costal and apical areas tinged with fuscous.

*Hab.* Madagascar; Nilgiris. *Exp.* 20–26 millim.

## Genus CRAMBUS.

Crambus, *Fabr. Ent. Syst. Suppl.* p. 464 (1798).
Calamotropha, *Zell. Mon. Chil. & Cramb.* p. 8 (1863).
Myeza, *Wlk. Cat.* xxvii, p. 190 (1863).
Epichilo, *Rag. Ann. Soc. Ent. Fr.* 1888, p. 278.

Type, *C. pascuellus*, Linn., from Europe.

*Range.* Universally distributed.

Palpi porrect, extending about three times the length of head and clothed with long hair; maxillary palpi triangularly scaled, with long hair; frons rounded; antennæ of male thickened and flattened, with appressed serrations; tibiæ with the outer spurs about half the length of inner. Fore wing with the apex acute; vein 3 from before angle of cell; 7, 8, 9 stalked; 10 free. Hind wing with vein 3 from near angle of cell.

Sect. I. Fore wing with vein 11 curved and approximated to 12; hind wing with veins 4, 5 from angle of cell.

A. *Fore wing with the apex rectangular.*

4156. **Crambus atkinsoni**, *Zell. Mon. Chil. & Cramb.* p. 9; *C. & S.* no. 4691.

♂. Head and thorax brownish grey. Fore wing with the costal and inner areas grey irrorated with fuscous, leaving a golden brown and fuscous streak along median nervure, expanding in the interspaces between veins 3 and 5; a black discocellular spot; traces of a curved submarginal series of dark specks; a marginal series of black specks. Hind wing nearly pure white. Abdomen and underside whitish.

♀ with the head, thorax, and fore wing much more uniformly coppery golden brown, irrorated with white scales; the costal area of fore wing darker red-brown; the discocellular spot more prominent; no trace of submarginal dark specks. Hind wing pure white.

*Hab.* Calcutta; Ceylon; Thayetmyo, Burma; Borneo. *Exp.*, ♂ 28, ♀ 28–34 millim.

4157. **Crambus chalcipterus**, n. sp.

Head, thorax, and abdomen bronze-brown and ochreous, the vertex of head pale. Fore wing ochreous white, with bronze-brown fasciæ in and below the cell and on inner area and streaks between the veins of outer area, leaving the costa pale; male with a dark submarginal mark on vein 2. Hind wing pale fuscous, the inner area whitish.

*Hab.* Khásis. *Exp.*, ♂ 20, ♀ 28 millim. Types in coll. Rothschild and B.M.

4158. **Crambus delatalis**, *Wlk. Cat.* xxvii, p. 176.

Pale grey-brown; vertex of head whitish. Fore wing with the veins and interspaces finely streaked with brown; a black discocellular speck, a marginal series of brown specks. Hind wing fuscous brown.

*Hab.* Ceylon; Moreton Bay, Australia. *Exp.*, ♂ 26, ♀ 30 millim.

*4159. **Crambus parvellus**, *Rag. Ann. Soc. Ent. Fr.* 1888, p. 278; *C. & S.* no. 4690.

Pale ochreous grey irrorated with fuscous; thorax and abdomen ochreous. Fore wing with a few dark scales forming traces of an oblique postmedial line from apex to inner margin beyond middle, the area beyond it greyer. Hind wing white.

*Hab.* Trichinopoly. *Exp.* 10–13 millim.

4160. **Crambus anticellus**, *Wlk. Cat.* xxxv, p. 1751.

♂. Head and thorax grey, suffused with coppery brown; abdomen whitish. Fore wing with the costal and inner areas grey irrorated with fuscous; the median area streaked with coppery brown; a black speck at origin of vein 2; a postmedial line excurved from costa to vein 6, then reduced to a series of specks; the interspaces of outer area streaked with white; a marginal series of black specks. Hind wing white slightly tinged with brown.

♀ with the hind wing pure white.

*Hab.* Natal; Travancore; Ceylon; Port Darwin, Australia. *Exp.* 24–26 millim.

4161. **Crambus unicolorellus**, *Zell. Mon. Chil. & Cramb.* p. 7; *C. & S.* no. 4678.

Crambus abbreviatellus, *Wlk. Cat.* xxxv, p. 1756; *C. & S.* no. 4692.

Crambus luteellus, *C. & S.* no. 4696 (*nec Schiff.*).

♂. Head, thorax, and abdomen grey and pale fulvous brown. Fore wing grey suffused with pale fulvous brown, leaving very ill-defined grey fasciæ below median nervure and on inner margin; the outer area grey; very faint traces of oblique medial and sub-

marginal lines; three black specks on margin below middle, the cilia silvery at that point. Hind wing whitish, suffused with very pale fuscous.

♀. Fore wing with the interspaces uniformly suffused with fuscous; the medial and submarginal lines better marked and dentate from the cell and vein 3 to inner margin. Hind wing pure white.

*Hab.* Dharmsála and Meean Meer, Punjab; Nilgiris. *Exp.* 20–28 millim.

4162. **Crambus famulellus,** *Wlk. Cat.* xxxv, p. 1765; *C. & S.* no. 4688.

♂. Pale reddish brown slightly irrorated with fuscous. Fore wing with outwardly oblique rufous line from middle of costa to upper angle of cell; a rufous patch on median nervure at end of cell; an indistinct submarginal rufous line highly angled at vein 6; a marginal series of black spots. Hind wing whitish.

*Hab.* Ceylon; Rangoon; Tongking. *Exp.* 14 millim.

4163. **Crambus dividellus,** *Snell. Trans. Ent. Soc.* 1890, p. 645, & *Tijd. v. Ent.* 1893, pl. 3, fig. 8.

♂. Head ochreous, thorax rufous; abdomen pale fuscous, the anal tuft ochreous. Fore wing with the costal half ochreous, slightly tinged with rufous; the inner half rufous, with an ochreous streak from base below median nervure and a dark speck below middle of cell; a marginal series of dark specks. Hind wing whitish with a slight fuscous tinge.

*Hab.* Sikhim. *Exp.* 30 millim.

4164. **Crambus punctivenellus,** *Hmpsn. P. Z. S.* 1895, p. 934.

♂. White; palpi fulvous at sides; thorax and abdomen irrorated with brown. Fore wing with the interspaces suffused with brown scales, leaving the base of cell and costal area whitest; a black spot at origin of vein 2; an oblique medial brown striga from costa; an indistinct submarginal brown line, double and very highly angled below costa; a marginal black line somewhat maculate at the veins. Hind wing white.

*Hab.* Ceylon; Tongking. *Exp.* 20 millim.

4165. **Crambus latellus,** *Snell. Trans. Ent. Soc.* 1890, p. 644, & *Tijd. v. Ent.* 1893, pl. 3, fig. 7.

Pure white; palpi fulvous yellow at base and black at tip; antennæ yellow; tarsi ringed with fulvous. Fore wing with oblique black streak across origin of vein 2; an oblique orange medial streak from costa and traces of medial line; a submarginal orange line oblique from costa to near margin, then sinuous; a crenulate marginal line enclosing an orange apical spot, and spot with two black specks on it above outer angle; cilia golden.

Underside of fore wing suffused with fuscous except marginal area.

*Hab.* Japan; Dharmsála; Khásis; Nágas. *Exp.* 20 millim.

4166. **Crambus melanostictus**, *Hmpsn. P. Z. S.* 1895, p. 937.

Differs from *latellus* in the palpi being white at tips. Fore wing with two oblique medial costal brown strigæ continued as a single medial line angled below costa, with a black spot on it at vein 2; the submarginal line brown, further from the margin, double from the costa to its angle at vein 6 and incurved at vein 2; no orange on marginal area; a slight brown marginal line; the cilia silvery.

*Hab.* Nágas; Ceylon. *Exp.* 16–20 millim.

4167. **Crambus oculalis**, *Snell. Tijd. v. Ent.* 1893, p. 64, pl. 3, fig. 6.

♂. White; palpi fulvous at sides except the 3rd joint; abdomen yellowish. Fore wing with the costa brown, with a broad fulvous fascia below it; an indistinct medial brown line oblique and highly angled below costa, then waved and with black specks on it at lower angle of cell and vein 2; a submarginal line double and highly angled below costa, then obsolescent, sinuous, and reduced to specks; the apex white with a large brown spot; three black specks on margin below middle; the cilia silvery. Underside of fore wing suffused with fuscous.

*Hab.* Ceylon; Java. *Exp.* 18 millim.

4168. **Crambus argenticilia**, *Hmpsn. P. Z. S.* 1895, p. 937.

♂. Pure silvery white; palpi tinged with fulvous at base. Fore wing with fine pale fuscous, slightly sinuous erect medial line; a similar submarginal line slightly excurved between veins 6 and 3; a black marginal line; cilia silvery.

*Hab.* Bhután; Ceylon. *Exp.* 16 millim.

4169. **Crambus ænescentellus**, *Hmpsn. P. Z. S.* 1895, p. 933.

♂. Head white, base of palpi and antennæ brown; thorax brown, the patagia white; abdomen white. Fore wing white; an æneous fascia along basal two-thirds of costa and broader fasciæ below median nervure and on inner margin; a fascia in end of cell, then bent upwards to apex; a series of marks in the interspaces beyond lower angle of cell; a marginal line. Hind wing white, the costal area with an æneous tinge.

♀ with the fore wing more wholly suffused with bronze.

*Hab.* Ceylon; E. Africa. *Exp.* 16 millim.

4170. **Crambus argyrophorus**, *Butl. Ill. Het.* ii, p. 61, pl. 40, fig. 5.

Head white; palpi fuscous at sides; thorax and abdomen fuscous, the former with white dorsal stripe. Fore wing pale

fuscous, with a broad silvery white fascia with dark line on its lower edge from base widening in end of cell, toothed on base of vein 2, then tapering, the area below it tinged with rufous; a submarginal brown line, oblique, angled, and double below costa, the area beyond it whitish with a series of short black striæ just inside the margin. Hind wing pale fuscous.

*Hab.* Japan; Sikhim. *Exp.* 22–26 millim.

4171. **Crambus hemileucalis**, n. sp.

♀. Differs from *argyrophorus* in the abdomen being paler. Fore wing with the whole costal half silvery white, leaving a narrow fulvous fascia on basal two-thirds of costa; the inner area much more fulvous: the submarginal line more orange, not double below costa; the black submarginal striæ on white spots, those on costal half quite obsolete. Hind wing whiter.

*Hab.* Manipur (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

4172. **Crambus nivellus**, *Koll. Hügel's Kaschmir*, iv, p. 495; *C. & S.* no. 4676.
Crambus todarius, *Butl. P. Z. S.* 1883, p. 173; *C. & S.* no. 4702.
Crambus aurvittatus, *Moore, Lep. Atk.* p. 226; *C. & S.* no. 4693.

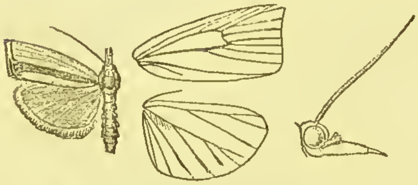

Fig. 11.—*Crambus nivellus*, ♂. 1/1.

Differs from *hemileucalis* in the fore wing having no fulvous on costa; the lower edge of the white fascia straight throughout; a white fascia on inner margin; no submarginal line.

*Hab.* Dharmsála; Sikhim; Nilgiris. *Exp.* 24 millim.

4173. **Crambus perlellus**, *Scop. Ent. Carn.* 620, p. 243.
Crambus warringtonellus, *Staint. Man.* ii, p. 184.

Head, thorax, and abdomen white, more or less tinged with fuscous. Fore wing silvery white, more or less tinged with ochreous or fuscous, and in the form *warringtonellus* all the veins streaked with fuscous. Hind wing more or less suffused with fuscous and the veins streaked with fuscous.

*Hab.* Europe; Kashmir. *Exp.* 30 millim.

4174. **Crambus impurellus**, *Hmpsn. P. Z. S.* 1895, p. 938.

White. Fore wing with the costal area slightly tinged with ochreous fuscous; the outer margin usually with a more or less developed series of black specks. Hind wing tinged with fuscous.

*Hab.* Afghanistan; Kashmir. *Exp.* 26 millim.

B. *Fore wing with the apex acute and produced; the outer margin not excised below apex.*

4175. **Crambus nigricosta**, *Hmpsn. Ill. Het.* viii, p. 143, pl. 156, fig. 22.

White; palpi at sides and antennæ rufous; thorax striped with rufous; abdomen blackish. Fore wing silvery white; the costal and outer margins narrowly black; cilia pale rufous.

*Hab.* Nilgiris. *Exp.* 24 millim.

4176. **Crambus nigriciliellus**, *Zell. Mon. Chil. & Cramb.* p. 52; *C. & S.* no. 4707.

Crambus inclaralis, *Wlk. Cat.* xxvii, p. 166; *C. & S.* no. 4664.
Crambus brachypterellus, *Wlk. Cat.* xxxv, p. 1757.

White, very slightly sullied with fuscous. Fore wing usually with a marginal series of dark specks from apex to vein 3; the underside suffused with fuscous.

*Hab.* Japan; China; Dharmsála; Bombay. *Exp.* 22–28 millim.

C. *Fore wing with the apex acute and produced, the outer margin excised below apex; hind wing with the lower part of cell very long.*

4177. **Crambus malacellus**, *Dup. Lep. Fr.* vii, p. 61, pl. 270, fig. 5; *C. & S.* no. 4697.

Crambus hapaliscus, *Zell. K. Vet.-Ak. Handl. Stockholm*, 1854, p. 71; *C. & S.* no. 4695.
Crambus concinellus, *Wlk. Cat.* xxvii, p. 165.

Head white; palpi cupreous black at sides; thorax black with white dorsal stripe; abdomen fuscous, whitish towards extremity. Fore wing cupreous black, with broad silvery white fascia from base, tapering beyond the cell; the inner margin more or less broadly white; two oblique white postmedial streaks from costa to apex of medial fascia, from which a line, angled outwards on vein 2, runs to inner margin; the area beyond it grey with four black streaks at middle; an apical black spot with white line on its inner edge and white patch below it. Hind wing white, tinged with fuscous towards outer margin.

*Hab.* Palæarctic, Ethiopian, Oriental, and Australian regions. *Exp.* 20 millim.

Sect. II. Fore wing with vein 11 becoming coincident with 12; hind wing, and often the fore wing, with veins 4, 5 stalked.

4178. **Crambus ochristrigellus**, *Hmpsn. P. Z. S.* 1895, p. 938.

♂. Ochreous. Fore wing with the interspaces irrorated with fuscous scales, forming obscure streaks from base to beyond middle and obscure postmedial and submarginal series of short streaks; two dark specks on the margin below middle. Hind wing ochreous white.

*Hab.* Lahore; Ceylon. *Exp.* 14–22 millim.

## Genus DIPTYCHOPHORA.

Diptychophora, *Zell. Stettin. ent. Zeit.* 1866, p. 153.
Ditomoptera, *Hmpsn. Ill. Het.* ix, p. 179 (1893).

Type, *D. kuhlweinii*, Zell., from Brazil.
*Range*. Neotropical, Oriental, and Australian regions.

Palpi porrect, clothed with long hair and extending about the length of head; maxillary palpi triangularly scaled; frons rounded; antennæ of male somewhat thickened and flattened; tibiæ with the spurs long and equal. Fore wing with the outer margin deeply excised below apex and slightly below vein 5; vein 3 from near angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9; 10 free; 11 free or becoming coincident with 12. Hind wing with veins 3, 4 from angle of cell; 5 from well above angle; 6, 7 from upper angle.

4179. **Diptychophora minutalis**, *Hmpsn. Ill. Het.* ix, p. 179, pl. 174, fig. 31.
Diptychophora præmaturella, *Snell. Trans. Ent. Soc.* 1890, p. 643 (*nec Meyr.*).

Head, thorax, and abdomen grey and fulvous; palpi yellowish. Fore wing grey suffused with brown; an indistinct curved antemedial line; a yellowish-brown or bright yellow patch from costa beyond middle embracing the blackish discocellular spot; an indistinct curved double submarginal line: the apical area bright yellow, with a white streak on it; some yellow on margin and three black spots below middle. Hind wing pale fuscous.

*Hab*. Dharmsála; Sikhim; Bhután; Ceylon. *Exp*. 10 millim.

4180. **Diptychophora tripunctata**, *Moore, Lep. Atk.* p. 226; *C. & S.* no. 4681.

♂. Orange fulvous, irrorated with fuscous. Fore wing with traces of dark specks on middle of costa; the apex orange, with a fuscous line across it and a white spot on it; the margin orange, with three black spots at middle; cilia fuscous, black at base. Hind wing yellowish white.

*Hab*. Sikhim; Khásis. *Exp*. 16 millim.

4181. **Diptychophora euzonella**, n. sp.

Head, thorax, and abdomen almost pure white. Fore wing white, the basal area irrorated with brown, forming a large patch on basal part of costa and a subbasal patch below the cell; a brown-edged bright fulvous antemedial band angled below costa; the discal area prominently irrorated with black-brown; two oblique fulvous fasciæ across apex; a fulvous marginal band enclosing four black spots towards outer angle; cilia silvery. Hind wing white tinged with fuscous; the cilia white.

*Hab*. Khásis. *Exp*. 14 millim. Types in coll. Rothschild and B.M.

4182. **Diptychophora albilinealis**, n. sp.

♂. Head, thorax, and abdomen fuscous. Fore wing reddish brown, with diffused fuscous black on basal area; a white antemedial line slightly indented below costa and with a black line on its outer edge; two dark-edged yellow discocellular spots; a dark-edged white postmedial line angled below costa, then oblique and sinuous to inner margin; a curved white streak on a yellowish mark on apical area; three marginal black spots below middle; the bases of cilia fuscous. Hind wing fuscous.

*Hab.* E. Pegu (*Doherty*). *Exp.* 14 millim. Type in coll. Elwes.

4183. **Diptychophora griseolalis**, *Hmpsn. P. Z. S.* 1895, p. 943.

♀. Whitish, thickly irrorated with brown. Fore wing with the costa pale fulvous at middle; an antemedial white line with dark line on its outer edge and angled below costa; a slight yellowish discocellular spot; a postmedial line highly excurved below costa, then oblique, crenulate, and with white spots on its outer edge to inner margin; the apical area yellow, with a white fascia; a dark line through the cilia.

*Hab.* Jubbulpore. *Exp.* 14 millim.

4184. **Diptychophora adspersella**, *Snell. Tijd. v. Ent.* 1893, p. 61, pl. 3, fig. 4.

♂. Head white; palpi brown at sides; thorax yellowish brown; abdomen pale. Fore wing yellowish white; the basal area irrorated with dark scales; a slightly oblique double medial dark line becoming orange at costa, the area beyond it whitish, followed by a series of dark streaks in the interspaces, then a series of orange streaks on the veins on the inner side of the fuscous submarginal line, which is angled outwards to the margin at vein 5; two black marginal specks below middle; cilia silvery fuscous. Hind wing yellowish white, with dark marginal line on apical area. Underside of fore wing fuscous, the marginal area pale, yellow at apex.

Fig. 12.
*Diptychophora adspersella*, ♂. $\frac{3}{2}$.

*Hab.* Dharmsála; Ceylon. *Exp.* 10 millim.

## Genus PLATYTES.

Platytes, *Guen. Eur. Microlep. Ind. Meth.* p. 86 (1845).
Ptychopseustis, *Meyr. Trans. Ent. Soc.* 1889, p. 521.

Type, *P. cerussella*, Schiff., from Europe.
*Range.* Universally distributed.

Proboscis well developed. Palpi porrect, extending two to

three times length of head and clothed with rough hair; maxillary palpi triangularly scaled; frons rounded; antennæ of male minutely serrate and ciliated; tibia with the spurs nearly equal. Fore wing with vein 3 from before angle of cell; 4, 5 from angle, 7 straight and well separated from 8, 9, which are sometimes coincident; 10 free; 11 usually oblique. Hind wing with vein 3 from before angle of cell; 4, 5 from angle or stalked; 6 from upper angle; 7 anastomosing with 8.

SECT. I. (*Platytes*). Fore wing with the outer margin not indented at vein 6.

A. *Fore wing with vein* 11 *anastomosing with* 12.

4185. **Platytes diatræella**, n. sp.

Head, thorax, and abdomen white tinged with olive-brown. Fore wing white, the interspaces streaked with olive-brown and irrorated with long olive-brown scales, leaving the veins broadly white; a marginal series of dark specks. Hind wing white, slightly suffused with olive fuscous.

*Hab.* Khásis. *Exp.* 40 millim. Types in coll. Rothschild and B.M.

B. *Fore wing with vein* 11 *free and oblique.*

4186. **Platytes paralella**, *Zell. Stettin. ent. Zeit.* 1867, p. 389, pl. ii, fig. 1; *C. & S.* no. 4699.

Head white; palpi rufous at sides; antennæ rufous; thorax white striped with rufous; abdomen pale fuscous. Fore wing whitish suffused with rufous, leaving the inner and outer areas white; a dark line from costa just beyond middle, very acutely angled below costa, then very oblique and with a black discocellular speck on it; a similar postmedial line excurved below costa instead of angled; a marginal series of black specks; cilia pale rufous, fuscous at base. Hind wing whitish, with fine brown marginal line towards apex.

*Hab.* Sikhim; Khásis. *Exp.* 20 millim.

4187. **Platytes marginipunctalis**, *Hmpsn. P. Z. S.* 1895, p. 945.

Pure white; palpi rufous at sides; collar with two rufous lines. Fore wing with slight rufous streaks from base along costa, median nervure, and vein 1; a medial rufous line very highly angled below costa and with a black discocellular spot on it; a double submarginal rufous line highly angled on vein 6, its outer portion indistinct and minutely crenulate near the angle; a marginal series of black specks; the cilia silvery at base, the tips fuscous. Hind wing pure white. Underside of fore wing suffused with fuscous.

*Hab.* Dharmsála. *Exp.* 18 millim.

4188. **Platytes niveifascialis**, *Hmpsn. P. Z. S.* 1895, p. 945.

♂. Head white; palpi brown at sides; thorax white and brown; abdomen ochreous white. Fore wing pale ochreous brown, with silvery white fascia from base through the cell, terminating in a point beyond the cell and edged by brown lines; some dark brown scales on inner area; a brown line from costa beyond middle, double to vein 6, where it is highly angled near the margin, then inwardly oblique, sinuous and obsolescent; a fuscous triangular shade on outer area meeting the apex of the silvery fascia; a fine crenulate dark marginal line. Hind wing ochreous white, slightly tinged with fuscous on marginal area.

Fig. 13.
*Platytes niveifascialis*, ♂. ½.

*Hab.* Nilgiris. *Exp.* 22 millim.

4189. **Platytes strigulalis**, *Hmpsn. P. Z. S.* 1895, p. 946.

♂. White; palpi fuscous at sides; abdomen with the two basal segments yellow above. Fore wing with oblique yellow-brown strigæ from costa; slight brown streaks below costa and in cell; the inner area irrorated with a few brown scales and with traces of a medial oblique line; a dark discocellular speck; the outer area prominently streaked with yellow-brown; an indistinct waved submarginal line bent inwards to costa and inner margin; a marginal series of black specks. Hind wing white.

*Hab.* Murree; Meeau Meer, Punjab; Nágas; Ceylon. *Exp.* 20 millim.

4190. **Platytes albipennella**, *Hmpsn. P. Z. S.* 1895, p. 946.

♂. Cretaceous white; palpi brownish at sides; abdomen with the two basal segments ochreous above. Fore wing with traces of pale fulvous streaks in the interspaces, and of a pale fulvous spot at lower angle of cell; a marginal series of dark specks; cilia with three brown lines through them. Hiud wing pure white.

*Hab.* Murree. *Exp.* 18 millim.

4191. **Platytes fulvizonella**, n. sp.

Head, thorax, and abdomen white irrorated with black. Fore wing white irrorated with black; a broad rather ill-defined medial fulvous band; the black irroration on disk taking the form of three diffused obliquely placed spots; a curved fulvous postmedial line expanding towards costa; a fulvous marginal band. Hind wing pale fuscous.

*Hab.* Khásis. *Exp.* 13 millim. Types in coll. Rothschild and B.M.

4192. **Platytes interstriatella,** *Hmpsn. P. Z. S.* 1895, p. 945.

♂. White; palpi rufous at sides; the thorax marked with rufous; abdomen brownish. Fore wing with the interspaces suffused with rufous, the veins white; a blackish patch below base of cell and a streak on base of inner margin; an ill-defined very oblique white band from lower angle of cell to inner margin, with blackish patches beyond discocellulars and below cell; an oblique submarginal white line from vein 3 to inner margin; a series of blackish marginal marks. Hind wing whitish.

*Hab.* Dharmsála. *Exp.* 24 millim.

4193. **Platytes apicella,** n. sp.

Head, thorax, and abdomen white and reddish brown; antennæ annulated with brown. Fore wing whitish, the base of costa, cell, disk, and inner area suffused with rufous and irrorated with brown, leaving a streak below costa white; traces of a highly dentate antemedial line; a black spot at lower angle of cell; outer area white, the veins streaked with brown; an oblique brown line across apex, then becoming sinuous and slightly waved, with a prominent semicircular brown mark beyond it on apical part of costa; a brown marginal line becoming macular at middle. Hind wing white tinged with fuscous.

*Hab.* Khásis; Ceylon (*Pole*). *Exp.* 24 millim. Type in B.M.

4194. **Platytes ictericalis,** *Swinh. P. Z. S.* 1885, p. 876, pl. 57, fig. 16; *C. & S.* no. 4534.

♂. Ochreous suffused with fuscous. Fore wing with indistinct minutely waved fuscous antemedial line; three dark specks on costa before middle; an ochreous discocellular spot; a minutely waved fuscous submarginal line excurved from costa to vein 5, then oblique to inner margin. Hind wing pale fuscous.

*Hab.* Aden; Poona. *Exp.* 16 millim.

4195. **Platytes fuscivenalis,** *Hmpsn. P. Z. S.* 1895, p. 947.

Ochreous. Fore wing with the veins streaked with brown; an obsolescent bisinuate very oblique leaden-coloured antemedial line; two leaden-coloured discocellular specks; a postmedial leaden-coloured line very oblique from costa to vein 6, then waved and obsolescent: a marginal series of dark specks. Hind wing pale ochreous, with dark marginal specks from apex to vein 3.

*Hab.* Ceylon. *Exp.* 18 millim.

4196. **Platytes plumbeolinealis,** *Hmpsn. P. Z. S.* 1895, p. 947.

Differs from *fuscivenalis* in being uniform ochreous irrorated with fuscous. Fore wing with the antemedial and postmedial lines prominently silvery, oblique from costa to above middle, then

waved and nearly erect to inner margin. Hind wing with traces of submarginal line.

Some specimens have the fore wing strongly suffused with leaden-grey before the antemedial and beyond the postmedial lines.

*Hab.* Punjab; Khásis; Ceylon. *Exp.* 18 millim.

SECT. II. Fore wing with the outer margin slightly indented at vein 6.

4197. **Platytes argentisparsalis**, *Hmpsn. P. Z. S.* 1895, p. 948.

♀. Differs from *plumbeolinealis* in being more fuscous and prominently irrorated with black scales. Fore wing with brilliant silver line from base of costa to median nervure near angle of cell, then erect to inner margin, with a black spot inside it below cell; a curved silver fascia on subcostal nervure at end of cell and a spot at lower angle; the silvery submarginal line more excurved below costa and nearer the margin; the marginal specks more prominent and on a grey band.

*Hab.* Ceylon. *Exp.* 18 millim.

SECT. III. (*Ptychopseustis*). Fore wing with the outer margin slightly indented at veins 6 and 2.

4198. **Platytes amœnella**, *Snell. Tijd. v. Ent.* 1880, p. 247, and 1884, pl. v, fig. 9.

♀. Grey-brown. Fore wing with sinuous fuscous antemedial line with ochreous spot on its outer edge below median nervure; an ochreous discocellular speck; a fuscous postmedial line defined by ochreous, oblique from costa to vein 6, then sinuous; a series of dark specks just inside the margin; a dark line at base and through middle of cilia. Hind wing paler, with diffused fuscous postmedial line.

*Hab.* Shán States; Celebes; New Guinea. *Exp.* 16 millim.

## Genus EROMENE.

Eromene, *Hübn. Verz.* p. 366 (? 1818).
Euchromius, *Guen. Eur. Microlep. Ind. Meth.* p. 86 (1845), præocc.

Type, *E. bella*, Hübn., from Europe.

*Range.* Neartic and Palæarctic regions; N.W. India.

Palpi porrect, extending about twice the length of head and thickly scaled; maxillary palpi triangularly scaled; frons produced to a conical process; antennæ of male thickened and flattened; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the apex usually rounded; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 well separated from 8, 9; 10 free; 11 oblique, not approximated to 12; male with a

shallow fovea in cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4199. **Eromene superbella**, *Zell. Stettin. ent. Zeit.* 1849, p. 314.

Grey, suffused with pale yellowish brown. Fore wing irrorated with dark brown scales; a straight dark-edged yellow band just beyond middle, with a white band on its inner edge; a thickly irrorated brown patch just beyond cell; a white line from costa towards apex to near outer margin on vein 6, then to inner margin as a submarginal line; the apical area with oblique yellow fascia and triangular white costal mark; black marginal spots from vein 5 to outer angle connected by silvery spots on their outer edges into sets of 2, 2, 3, and 2 spots. Hind wing white, with traces of curved submarginal line.

*Hab.* Europe; Sind; Punjab. *Exp.* 16 millim.

4200. **Eromene ocellea**, *Haw. Lep. Brit.* p. 486; *C. & S.* no. 4680.
Eromene bella, *C. & S.* no. 4679 (*nec Hübn.*).

Brownish ochreous. Fore wing rather long and narrow, with postmedial somewhat oblique fulvous-yellow band with silvery line on it, the area beyond it greyish irrorated with black scales; a fulvous-yellow fascia traversed by a silvery line across apical area continued as double brown lines to inner margin; the marginal spots as in *superbella*. Hind wing whitish, tinged with fuscous towards outer margin.

Fig. 14. —*Eromene ocellea*, ♂. $\frac{3}{2}$.

Some specimens have a fuscous tinge.

*Hab.* Europe; Aden; Afghanistan; Punjab; Karáchi; Mhow; Poona. *Exp.* 20 millim.

## Genus STENOCHILO.

Stenochilo, *Hmpsn. P. Z. S.* 1895, p. 950.

Type, *S. canicostalis*, Hmpsn.

*Range.* Sind; Calcutta.

Palpi porrect, extending about one and a half times length of head and smoothly scaled; maxillary palpi dilated with scales at extremity; frons with a conical prominence; antennæ of female somewhat annulate; tibiæ with the outer spurs about two-thirds length of inner. Fore wing long and very narrow; the apex rectangular; the inner margin lobed towards base; vein 3 from near angle of cell; 4, 5 well separated at origin; 6, 7 shortly stalked; 10 and 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from a point in female, 5 absent in male; 6, 7 shortly stalked.

4201. **Stenochilo canicostalis**, *Hmpsn. P. Z. S.* 1895, p. 950.

Reddish brown irrorated with grey; the head, collar, and costal area of fore wing very thickly irrorated, the last with white spot below middle of cell; traces of a submarginal line and marginal series of specks. Hind wing hyaline white.

Fig. 15.—*Stenochilo canicostalis*, ♀. 1/1.

*Hab.* Sind; Calcutta. *Exp.*, ♂ 26, ♀ 30 millim.

## Genus MACROCHILO.

Macrochilo, *Hmpsn. P. Z. S.* 1895, p. 950.

Type, *M. ambiguellus*, Snell.

*Range.* N.E. India.

Palpi porrect, clothed with rough hair, and extending about one and a half times length of head; maxillary palpi dilated with hair; frons with a conical process; antennæ of male thickened by appressed serrations; patagia fringed with long hair in male; tibiæ with the spurs long, the outer spurs about two-thirds length of inner. Fore wing with the apex acute and produced; vein 3 from before angle of cell; 4, 5 from angle; 7 shortly stalked with 8, 9, 10; 11 oblique. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 stalked.

4202. **Macrochilo ambiguellus**, *Snell. Trans. Ent. Soc.* 1890, p. 642, pl. xx, fig. 4.

Pydna notata, *Swinh. Trans. Ent. Soc.* 1891, p. 479, pl. xix, fig. 16.

Pale yellowish olive-brown. Fore wing with dark speck below base of cell, a spot at middle of cell and another below it; a small

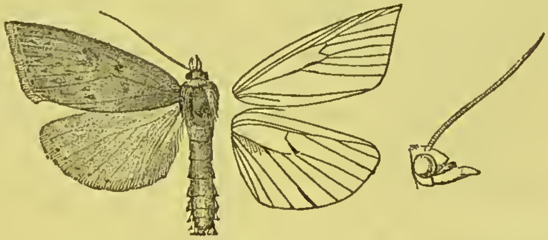

Fig. 16.—*Macrochilo ambiguellus*, ♂. 1/1.

annulus in upper angle; an oblique slightly sinuous postmedial series of dark spots; traces of a waved submarginal line. Hind wing white; both wings with marginal series of black specks. Underside of both wings with black spot at upper angle of cell; postmedial and marginal series of black specks.

*Hab.* Sikhim; Khásis. *Exp.*, ♂ 46, ♀ 58 millim.

## Genus CHILO.

Chilo, *Zinck. Germar's Mag. Ent.* ii, p. 33 (1817).

Type, *C. phragmitellus*, Honrath, from Europe.

*Range.* Universally distributed.

Proboscis absent. Palpi porrect, clothed with rough hair, and extending from two and a half to three times length of head; maxillary palpi dilated with scales at extremity; frons with a conical projection; antennæ minutely serrate and ciliated; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the apex rectangular in male, typically acute and produced in female; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9; 10 free; 11 curved and approximated to 12. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4203. **Chilo simplex**, *Butl. P. Z. S.* 1880, p. 690.
Crambus zonellus, *Swinh. P. Z. S.* 1884, p. 528, pl. 48, fig. 16; *C. & S.* no. 4703.
Crambus partellus, *Swinh. P. Z. S.* 1885, p. 879; *C. & S.* no. 4700.

♂. Yellowish brown suffused with fuscous. Fore wing with the costal area rather darkest; traces of dark specks below middle of cell and at lower angle; the veins of outer area slightly streaked with fuscous; a marginal series of black specks. Hind wing whitish with slight fuscous tinge.

Fig. 17.—*Chilo simplex*, ♂. 1/1.

♀ paler; the hind wing white.

The form *partellus* has on the fore wing of male a highly curved antemedial series of short fuscous streaks, a slight yellowish patch in end of cell, an oblique series of diffused fuscous streaks from apex to middle of inner margin, and a submarginal series of specks; female with some diffused fuscous from apex round lower angle of cell, or sometimes nearly evenly suffused with fuscous, with a dark fuscous patch beyond cell.

*Hab.* Japan; Chusan; Formosa; Meean Meer, Punjab; Karáchi. *Exp.* 22 millim.

4204. **Chilo ceylonicus**, *Hmpsn. P. Z. S.* 1895, p. 957.

Ochreous brown irrorated with fuscous. Fore wing with the fuscous irroration forming streaks in the interspaces except on inner margin; an indistinct fulvous medial line curved below costa and with silvery scales on its edges; a submarginal silver line bent inwards below costa; a marginal series of black spots with white

centres; cilia silvery. Hind wing whitish, tinged with fuscous on apical area in male; an indistinct marginal series of black specks.

*Hab.* Ceylon. *Exp.*, ♂ 22, ♀ 26 millim.

4205. **Chilo suppressalis**, *Wlk. Cat.* xxvii, p. 166.

♂. Head and thorax brown and white; abdomen pale. Fore wing with the apex somewhat acute, ochreous, wholly suffused with brown except a patch in cell and a streak below median nervure; the inner margin whitish; a sinuous rufous medial line with silvery spots on its inner side, also on discocellulars, and below vein 2; a rufous submarginal line, highly angled at vein 6 and with silvery line on its outer edge; a marginal series of black specks; the cilia rufous. Hind wing white.

♀ much more orange fulvous; fore wing irrorated with brown; the medial and submarginal lines almost obsolete; the silvery spots below the cell prominent and sometimes double; the postmedial area irrorated with silvery scales.

*Hab.* Shanghai; Meean Meer, Punjab; Sibságar, Assam; Calcutta; Ceylon. *Exp.*, ♂ 18, ♀ 18–20 millim.

4206. **Chilo dichromellus**, *Wlk. Cat.* xxxv, p. 1707.

♂. Dark brown; vertex of head and thorax ochreous; abdomen fuscous. Fore wing with the inner area ochreous; diffused spots of black and white scales on discocellulars and vein 2; a marginal series of white specks on small black spots. Hind wing fuscous.

♀ with the palpi more ochreous; the vertex of thorax brown. Fore wing with the inner area less ochreous; hind wing whitish slightly suffused with fuscous.

*Hab.* Bhután. *Exp.*, ♂ 28, ♀ 40 millim.

4207. **Chilo pulverulentus**, *Warr. A. M. N. H.* (6) ix, p. 393.

Ochreous brown slightly irrorated with fuscous; palpi blackish at sides. Fore wing with oblique slightly curved antemedial black line; a diffused fuscous black spot at lower angle of cell; a sinuous postmedial line bent inwards between veins 3 and 2; a slight marginal line. Hind wing pale fuscous.

*Hab.* Dharmsála; Khásis. *Exp.*, ♂ 16, ♀ 22 millim.

4208. **Chilo fuscidentalis**, *Hmpsn. P. Z. S.* 1895, p. 956.

♀. Reddish brown suffused with fuscous. Fore wing with the costal half of wing to beyond cell fuscous; a reddish-brown spot in end of cell; a dentate dark antemedial line oblique from costa to vein 1; a curved highly dentate dark submarginal line. Hind wing with obscure curved diffused postmedial line terminating at vein 2.

*Hab.* Sikhim. *Exp.* 46 millim.

4209. **Chilo torrentellus**, *Meyr. Proc. Linn. Soc. N. S. W.* iii, p. 184.

♀. Head, thorax, and abdomen white, slightly tinged in parts with fuscous. Fore wing with pure white costal stripe, followed by a cupreous-brown fascia through the cell expanding to outer margin, with a similar pure white fascia below the cell; the inner area cupreous brown; a marginal series of black specks. Hind wing pure white, the apex with a fine dark marginal line; both wings with fine fuscous line through the cilia.

*Hab.* Sikhim; Shán States; Australia. *Exp.* 30 millim.

## Genus ESCHATA.

Eschata, *Wlk. Cat.* ix, p. 133 (1856).
Chærecla, *Wlk. Cat.* xxxii, p. 633 (1865).

Type, *E. gelida*, Wlk.
*Range.* Oriental region.
Palpi porrect, reaching slightly beyond the frons and thickly scaled; maxillary palpi dilated with scales and nearly as long as labial; frons produced to an acute corneous point; antennæ of male thickened and flattened; tibiæ and tarsal joints fringed with long hair. Fore wing with vein 3 from before angle of cell; 7 from cell, anastomosing, or stalked with 8, 9; 10 free; 11 curved and running along 12. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

SECT. I. Fore wing with the apex somewhat produced and acute.

4210. **Eschata xanthorhyncha**, *Hmpsn. P. Z. S.* 1895, p. 960.

♂. Differs from *gelida* in the head and thorax being white; palpi orange, banded with white; fore legs orange fringed with white; tarsi banded with orange. Fore wing with the area between the postmedial and submarginal lines evenly irrorated with black scales. Hind wing fuscous black; the cilia white. Underside with the basal two-thirds of wings suffused with fuscous black.

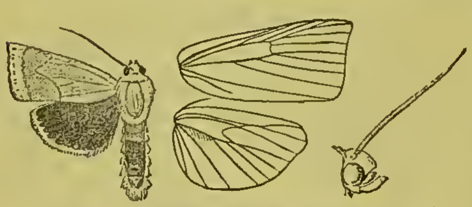

Fig. 18.—*Eschata xanthorhyncha*, ♂. 1/1.

*Hab.* Ceylon. *Exp.* 32 millim.

4211. **Eschata gelida**, *Wlk. Cat.* ix, p. 133; *C. & S.* no. 4652.

♂. Differs from *chrysargyria* in the head, thorax, and abdomen being tinged with fuscous. Fore wing with the basal half suffused with golden brown, leaving a band of white inside the postmedial

line; a complete series of marginal black specks; the whole cilia metallic fuscous. Hind wing suffused with fuscous, the costal and outer margins whitish; the cilia white. Underside slightly suffused with fuscous.

*Hab.* Sikhim; Khásis. *Exp.* 40 millim.

4212. **Eschata chrysargyria**, *Wlk. Cat.* xxxii, p. 634.

Eschata argentata, *Moore, Lep. Atk.* p. 227; *C. & S.* no. 4650.

Pure white; antennæ blackish; abdomen with the two basal segments orange above; terminal joint of tarsi usually orange; wings silvery white. Fore wing with silver streaks in the interspaces beyond and below cell; a pale waved orange line from costa just beyond middle running out to an acute angle on vein 5, then bent inwards to below end of cell on vein 2; the area beyond it below costa and vein 4 irrorated with a few black scales; a bright orange curved submarginal line; black marginal specks below apex and above outer angle; the cilia golden at apex and above outer angle.

*Hab.* N. China; Sikhim; Khásis; Nágas; Manipur; Nilgiris; Rangoon; Ceram. *Exp.*, ♂ 32–40, ♀ 44–60 millim.

4213. **Eschata xanthocera**, *Hmpsn. P. Z. S.* 1895, p. 961.

♂. Differs from *chrysargyria* in the antennæ being orange, the legs orange fringed with white hair. Fore wing with the postmedial and submarginal lines almost obsolete; the cilia white with golden tips throughout.

*Hab.* Ceylon. *Exp.* 38 millim.

4214. **Eschata melanocera**, n. sp.

♂. Differs from *argentata* in the bases of 1st and 2nd joints of palpi being black; antennæ black; fore tibiæ orange fringed with white hair; the tarsi banded with orange. Fore wing with the orange postmedial line slightly angled on vein 5 and below vein 2, and reaching middle of inner margin; the area between it and the submarginal line evenly irrorated with black scales; a marginal series of black specks; the whole cilia metallic fuscous. Hind wing with some dusky fulvous on inner area.

*Hab.* Nágas (*Doherty*). *Exp.* 46 millim. Type in coll. Elwes.

SECT. II. Fore wing with the apex rectangular and not produced.

4215. **Eschata conspurcata**, *Moore, Lep. Atk.* p. 227; *C. & S.* no. 4651.

♂. Silvery white; palpi black, white below and at end of 2nd joint and maxillary palpi; antennæ black; abdomen fuscous above, the first two segments orange. Fore wing with obsolescent orange

postmedial line arising from costa beyond middle, oblique to vein 5, where it is angled, then nearly straight to inner margin near the curved orange submarginal line; some black marginal specks above outer angle. Hind wing smoky black, with marginal series of black striæ; the cilia white. Underside with the basal two-thirds suffused with smoky black.

♀. Abdomen white; fore wing with the postmedial line almost obsolete; hind wing white, slightly suffused with fuscous below cell; underside slightly suffused with fuscous at base of wings.

*Hab.* Sikhim. *Exp.*, ♂ 50, ♀ 60 millim.

4216. **Eschata percandida**, *Swinh. Trans. Ent. Soc.* 1890, p. 293.

♀. Silvery white; abdomen with the two basal segments orange above. Fore wing with indistinct orange postmedial line excurved beyond cell and double from lower angle of cell to inner margin, the area beyond it irrorated with small rufous scales to the indistinct curved orange postmedial line, which is double from vein 5 to inner margin; a marginal series of black specks.

*Hab.* Rangoon. *Exp.* 42 millim.

4217. **Eschata ochripes**, *Hmpsn. Ill. Het.* viii, p. 143, pl. 156, fig. 23.

♂. Silvery white; palpi black at base; antennæ fulvous; legs orange fringed with white hair; abdomen fuscous above, the first two segments orange. Fore wing uniform white, irrorated with a few black scales on outer area. Hind wing suffused with fuscous except the costal and outer areas. Underside of fore wing with diffused black streaks on costal area and median nervure beyond cell.

*Hab.* Nilgiris. *Exp.* 40 millim.

## Genus MESOLIA.

Mesolia, *Rag. Ann. Soc. Ent. France*, 1888, p. 282.

Type, *M. pandavella*, Rag.

*Range.* N. America; W. Indies; China; India; Ceylon.

Palpi porrect, thickly clothed with hair, and extending about twice the length of head; maxillary palpi triangularly scaled; frons with a conical projection; antennæ of male thickened and flattened; tibiæ with the outer spurs about half the length of inner. Fore wing long and narrow, the apex rounded; veins 4, 5 from angle of cell; 3 absent; 7, 8, 9 stalked; 10, 11 free; the outer margin produced from apex to vein 5. Hind wing with vein 3 absent; 4, 5 from angle of cell; 6 from upper angle; the upper margin of cell widely separated from 8, 7 curving upwards to anastomose with 8.

4218. **Mesolia pandavella**, *Rag. Ann. Soc. Ent. France*, 1888, p. 282; *C. & S.* no. 4724.

♂. Dark reddish brown irrorated with fuscous. Fore wing with diffused whitish fascia from base below median nervure to outer margin; a brown medial line with white inner edge, oblique from costa to vein 4, then angled and dentate inwards on vein 2; a white line across apical area angled on the margin at vein 6, then dentate; a sinuous white line across apex; cilia with a dark line through them from costa to the indentation. Hind wing whitish.

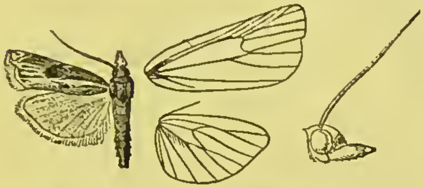

Fig. 19.—*Mesolia pandavella*, ♂. $\frac{3}{1}$.

♀ browner, with hardly a trace of the pale fascia on fore wing.

N. Indian specimens are paler and more rufous than those from Ceylon.

*Hab.* Dharmsála; Lahore; Trichinopoly; Ceylon. *Exp.*, ♂ 18, ♀ 22 millim.

## Genus SURATTHA.

Surattha, *Wlk. Cat.* xxvii, p. 75 (1863).
Calarina, *Wlk. Cat.* xxxv, p. 1769 (1866).

Type, *S. invectalis*, Wlk.

*Range.* India, Ceylon, and Burma; Java; Australia; Africa.

Palpi porrect and thickly scaled, extending about one and a half times length of head; maxillary palpi triangularly scaled; frons with a conical process; antennæ of male bipectinated, usually with long branches; tibiæ with the spurs long, the outer spurs about two-thirds length of inner. Fore wing long and narrow, the apex rounded; vein 3 from near angle of cell; 4, 5 usually on a long stalk; 6, 7 and 10, 11 free. Hind wing with vein 3 from near angle of cell; 5 absent; 6 obsolescent from above middle of discocellulars, 7 anastomosing with 8.

Sect. I. Fore wing with veins 4, 5 stalked.

4219. **Surattha invectalis**, *Wlk. Cat.* xxvii, p. 76; *C. & S.* no. 4723.
Pindicitora thysbesalis, *Wlk. Cat.* xxvii, p. 135; *C. & S.* no. 4718.
Scopula nigrifascialis, *Wlk. Cat.* xxxiv, p. 1472; *C. & S.* no. 4155.
Calarina albirenella, *Walk. Cat.* xxxv, p. 1770; *C. & S.* no. 4721.

Greyish ochreous irrorated with fuscous. Fore wing with indistinct pale waved antemedial line, with fuscous suffusion on the edges; similar more distinct medial and postmedial lines, the latter angled on vein 5, the former with dentate dark marks on its outer edge, the latter on its inner; a white spot beyond discocellulars;

a marginal series of black specks and a line through the cilia. Hind wing pale or dark fuscous, rarely pure white.

Fig. 20.—*Surattha invectalis*, ♂. ½.

In many specimens the area between the medial and postmedial lines of the fore wing is blackish; in one female the whole fore wing is suffused with fuscous, and the markings hardly traceable.

*Hab.* W. and S. India; Ceylon; Shán States; Java. *Exp.*, ♂ 22–30, ♀ 26–32 millim.

4220. **Surattha albipennis**, *Butl. P. Z. S.* 1886, p. 383; *C. & S.* no. 4720.

Greyish ochreous irrorated with fuscous. Fore wing with fuscous-irrorated grey fasciæ on costa. below cell and vein 1, beyond cell and in interspaces of outer area; traces of sinuous antemedial and medial lines; a white spot beyond cell; a highly dentate submarginal line defined by white and ochreous on its inner edge; a marginal series of black and white specks. Hind wing pure white.

*Hab.* Campbellpur; Karáchi; E. Africa. *Exp.*, ♂ 24, ♀ 28 millim.

4221. **Surattha scitulella**, *Wlk. Cat.* xxxv, p. 1755; *C. & S.* no. 4701.

Brownish ochreous; head, thorax, and abdomen tinged with fuscous. Fore wing with diffused fuscous on basal inner area and defining the inner side of the oblique ochreous medial band, the area between which and the oblique submarginal band is fuscous except on costal area; a black discocellular spot; the submarginal band dentate inwards below costa; the marginal area fuscous, with a series of black specks. Hind wing pale fuscous or whitish.

*Hab.* Coimbatore; Ceylon. *Exp.*, ♂ 16, ♀ 24 millim.

Sect. II. Fore wing with veins 4, 5 from cell; antennæ of male bipectinated with short branches dilated at extremity.

4222. **Surattha fuscilella**, *Swinh. A. M. N. H.* (6) xvi, p. 301.

♂. Dark fuscous brown with a slight grey tinge. Fore wing with obscure dark outwardly oblique antemedial and medial lines; a discocellular spot; an obscure sinuous submarginal line; a marginal series of specks. Hind wing dark brown.

*Hab.* Raipur; Bombay. *Exp.* 18 millim.

## Genus ANCYLOLOMIA.

Ancylolomia, *Hübn. Verz.* p. 363 (? 1818).
Jartheza, *Wlk. Cat.* xxvii, p. 183 (1863).

Type, *A. tentaculella*, Hübn., from Europe.

*Range.* Argentina; Mediterranean subregion; Ethiopian and Oriental regions; Australia.

Palpi porrect, thickly clothed with hair, and extending about three times the length of head; maxillary palpi triangularly scaled; frons oblique; abdomen long; tibiæ with the outer spurs about two-thirds length of inner. Fore wing long and narrow; the apex produced; the outer margin excised below apex, then excurved; veins 3, 4, 5 from angle of cell; 7, 8, 9 stalked; 10 free; 11 becoming coincident with 12. Hind wing with vein 3 from close to angle of cell; 4, 5 from angle or stalked: 6 from above middle of discocellulars and obsolescent; 7 anastomosing with 8.

SECT. I. Antennæ of male with short uniseriate laminated branches; of female simple.

4223. **Ancylolomia chrysographella,** *Koll. Hügel's Kaschmir*, iv, p. 494; *C. & S.* no. 4712.
Ancylolomia capensis, *Zell. Mon. Chil. & Cramb.* p. 11.
Ancylolomia taprobanensis, *Zell. Hor. Ent. Ross.* 1877, p. 25, pl. 1, fig. 8; *Moore, Lep. Ceyl.* iii, pl. 184, figs. 2, 2 *a*; *C. & S.* no. 4710.
Ancylolomia indica, *Feld. Reis. Nov.* pl. 137, fig. 19; *C. & S.* no. 4714.
Ancylolomia argentata, *Moore, Lep. Ceyl.* iii, p. 382, pl. 184, fig. 3; *C. & S.* no. 4708.

Brownish ochreous. Fore wing with silvery and yellow fasciæ, with streaks of black scales on them in cell and the interspaces beyond and below it; a minutely dentate submarginal silvery line with a more prominent tooth at vein 3; a whitish marginal band with a series of dark specks on it; the cilia silvery. Hind wing whitish, pale fuscous, or dark fuscous in the form *taprobanensis*, which is more common in the South.

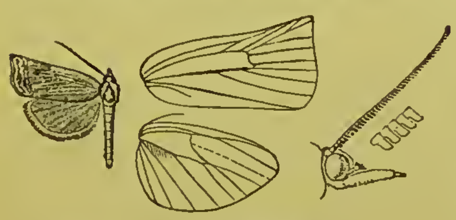

Fig. 21.
*Ancylolomia chrysographella*, ♂. 1/1.

The fore wing may have a white fascia developed on median nervure.

*Hab.* S. Africa; Aden; Japan; China; Formosa; throughout India, Ceylon, and Burma; Penang. *Exp.*, ♂ 20–30, ♀ 30–40 millim.

4224. **Ancylolomia locupletella**, *Koll. Hügel's Kaschmir*, iv, p. 394.

Differs from *chysographella* in the ground-colour of fore wing being much greyer; prominent white fasciæ on costa and below median nervure; the marginal band whiter. Hind wing pale fuscous; the margin white.

The larva bores in the stems of *Spinifex squarrosa*.

*Hab.* Simla; Ceylon. *Exp.*, ♂ 22, ♀ 34 millim.

Sect. II. Antennæ of male with long uniseriate pectinations.

4225. **Ancylolomia saundersiella**, *Zell. Mon. Chil. & Cramb.* p. 10.
Jartheza biplagella, *Moore, P. Z. S.* 1872, p. 582, pl. 34, fig. 9; *C. & S.* no. 4713.
Jartheza obstitella, *Swinh. P. Z. S.* 1885, p. 880, pl. 57, fig. 3; *C. & S.* no. 4715.

Differs from *chrysographella* in being more suffused with golden ochreous; the patagia blackish, with a white fascia. Fore wing with the costa black; a white fascia on median nervure, with a black fascia below it; a black speck on discocellulars. Hind wing pale fuscous in male, white in female.

*Hab.* Bombay; Poona. *Exp.*, ♂ 26–30, ♀ 30–34 millim.

4226. **Ancylolomia responsella**, *Wlk. Cat.* xxvii, p. 184; *C. & S.* no. 4716.
Jartheza xylinella, *Wlk. Cat.* xxvii, p. 184; *C. & S.* no. 4717.
Jartheza cassimella, *Swinh. P. Z. S.* 1886, p. 461, pl. 41, figs. 4, 6; *C. & S.* no. 4711.

Golden brown; the patagia dark; the base of abdomen pale. Fore wing with orange-brown fascia in the cell, with black scales on it and silver fascia below it; streaks of black scales and silvery fasciæ in interspaces beyond cell; the inner area orange-brown, irrorated with black scales, expanding below end of cell almost to vein 2, and with a silvery fascia on it; a marginal grey band with series of black spots on it, inwardly edged by an irregularly dentate silvery line excurved to near the margin below middle; the cilia silvery. Hind wing varying from whitish to fuscous.

*Hab.* Simla; Nepal; Mhow; Nilgiris. *Exp.*, ♂ 28–32, ♀ 34–40 millim.

4227. **Ancylolomia basistriga**, *Moore, Lep. Ceyl.* iii, p. 382, pl. 184, fig. 1; *C. & S.* no. 4709.

Differs from *responsella* in being browner. Fore wing with the fascia and streaks diffused and indistinct; the marginal markings dark and ill-defined. Hind wing fuscous.

*Hab.* Ceylon. *Exp.*, ♂ 40, ♀ 40–50 millim.

Sect. III. Antennæ of female serrate.

4228. **Ancylolomia uniformella**, *Hmpsn. P. Z. S.* 1895, p. 967.

♀. Pale ochreous. Fore wing thickly irrorated with fuscous, rather more thickly in cell, where it forms an obscure fascia. Hind wing pure white.

*Hab.* Hyderabad, Sind. *Exp.* 38 millim.

## Genus CHARLTONA.

Charltona, *Swinh. P. Z. S.* 1885, p. 878.

Type, *C. kala*, Swinh.

*Range.* India, Ceylon, and Burma.

Palpi porrect, clothed with rough hair, and projecting about one and a half times length of head; maxillary palpi triangularly dilated with hair; frons rounded; tibiæ with the outer spurs about two-thirds length of inner; wings long and narrow. Fore wing with the apex rectangular; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9; 10 free; 11 curved and approximated to 12. Hind wing with vein 3 from near angle of cell; 4, 5 from angle and approximated for a short distance; 6 absent; 7 anastomosing with 8.

Sect. I. Antennæ of male bipectinate, with short branches dilated at extremity.

4229. **Charltona kala**, *Swinh. P. Z. S.* 1885, p. 879, pl. 57, fig. 4; *C. & S.* no. 4685.

Head, thorax, and fore wing uniform black-brown; the last with diffused long black scales with pale bases in interspaces of inner and outer areas; abdomen and hind wing pale fuscous.

*Hab.* Mhow; Satára; N. Kanara; Ceylon. *Exp.*, ♂ 30, ♀ 40 millim.

Sect. II. Antennæ of male with short uniseriate laminated branches.

4230. **Charltona laminata**, *Hmpsn. P. Z. S.* 1895, p. 970.

♂. Differs from *kala* in the hind wing being browner fuscous.

*Hab.* Burma. *Exp.* 34 millim.

4231. **Charltona cervinella**, *Moore, P. Z. S.* 1872, p. 581, pl. 34, fig. 7; *C. & S.* no. 4669.

Chilo interruptellus, *Moore, P. Z. S.* 1872, p. 581, pl. 34, fig. 5; *C. & S.* no. 4674.

Head and thorax brownish ochreous, the latter with black dorsal stripe; abdomen fuscous. Fore wing pale ochreous brown, irro-

rated with fuscous; a black fascia from middle of cell to outer margin; a fascia from base below median nervure, and short fasciæ above veins 2, 3, 4; the median nervure and veins beyond the cell

Fig. 22.—*Charltona cervinella*, ♂. $\frac{1}{1}$.

streaked with white; a marginal series of black specks. Hind wing pale fuscous, the cilia white.

*Interruptella* is a pale ochreous-white form, with a tendency to obsolescence of the fasciæ of fore wing; the hind wing whitish.

*Hab.* Bombay; Mhow; Matheran; Poona; Bangalore; Nilgiris; Pirmád, Travancore. *Exp.*, ♂ 40, ♀ 46–52 millim.

4232. **Charltona bivitella**, *Moore, P. Z. S.* 1872, p. 581, pl. 34, fig. 8; *C. & S.* no. 4668.

♀. Differs from the form *interruptella* in the fascia in and beyond cell of fore wing being broader and not reaching outer margin; the fascia below median nervure shorter; the patch between the veins smaller; a broad black fascia on inner area traversed towards outer margin by an ochreous streak on vein 1.

*Hab.* Bombay. *Exp.* 38 millim.

4233. **Charltona consociella**, *Wlk. Cat.* xxvii, p. 159; *C. & S.* no. 4694.

Ochreous; palpi fuscous at sides. Fore wing slightly irrorated with fuscous; the costa fuscous; a black fascia below median nervure and a fascia from end of cell tapering to outer margin; a marginal series of black specks. Hind wing white.

*Hab.* Calcutta. *Exp.*, ♂ 34, ♀ 44 millim.

4234. **Charltona inconspicuella**, *Moore, P. Z. S.* 1872, p. 582, pl. 34, fig. 6; *C. & S.* no. 4673.

♀. Ochreous white; abdomen fuscous. Fore wing with brown fascia from base below median nervure; an obsolescent fascia in and beyond the end of cell, and short streaks above veins 2, 3, 4; a marginal series of black specks. Hind wing dark fuscous, the cilia white.

*Hab.* Bombay; Travancore. *Exp.* 40 millim.

4235. **Charltona desistalis**, *Wlk. Cat.* xxvii, p. 165; *Moore, Lep. Ceyl.* iii. pl. 184, fig. 10; *C. & S.* no. 4670.

♀. Pale ochreous, thickly irrorated with brown; palpi rufous at

sides; legs and abdomen fuscous. Fore wing thickly irrorated with long black-brown scales; traces of a dark fascia in and beyond cell; a marginal series of black specks. Hind wing pale fuscous.
*Hab.* Ceylon. *Exp.* 36 millim.

SECT. III. Antennæ of male with long uniseriate branches.

4236. **Charltona ortella**, *Swinh. P. Z. S.* 1886, p. 461, pl. 41, fig. 3; *C. & S.* 4677.

Ochreous white; palpi black at sides; thorax with a dorsal black streak. Fore wing slightly irrorated with black; the base of costa black; a deep black fascia from base below median nervures, widest beyond the cell; a marginal series of black specks. Hind wing white or very pale fuscous, sometimes with slight fuscous shading beyond lower angle of cell.
*Hab.* Simla; Sikhim; Jubbulpore; Mhow. *Exp.*, ♂ 34, ♀ 40 millim.

## Subfamily SCHŒNOBIINÆ.

Proboscis absent or very minute; palpi usually porrect, the maxillary palpi being usually well developed and dilated with scales at extremity. Fore wing with vein 7 from cell, except in *Banepa*, *Ramila*, and *Leucoides*. Hind wing with the median nervure not pectinated on upperside; vein 7 usually anastomosing with 8.

The larvæ of the species of which the early stages are known feed in the interior of reeds.

### *Key to the Genera.*

A. Palpi with the 2nd joint porrect, the 3rd upturned; fore wing with veins 7, 8, 9, 10 stalked .............................. 2. BANEPA, p. 39.
B. Palpi upturned; maxillary palpi minute .. 1. NIPHOPYRALIS, [p. 38.
C. Palpi porrect.
  *a.* Fore wing with veins 7, 8, 9 stalked.
    *a'.* Both wings with veins 4, 5 from cell .. 5. RAMILA, p. 41.
    *b'.* Both wings with veins 4, 5 stalked.... 4. LEUCOIDES, p. 40.
  *b.* Fore wing with veins 8, 9, 10 stalked, 7 from cell.
    *a'.* Palpi projecting about twice the length of head; hind wing with vein 7 anastomosing with 8 to near apex.
      *a*². Frons smooth; abdomen with lateral tufts towards extremity .......... 6. EURYCRASPEDA, [p. 42.
      *b*². Frons with a sharp tuft; abdomen without lateral tufts ............ 7. BRIHASPA, p. 42.
    *b'.* Palpi projecting about the length of head; hind wing with vein 7 anastomosing with 8 to about ⅘ of wing.... 8. PATISSA, p. 43.

*c*. Fore wing with veins 8, 9 stalked, 7 separate.
  *a'*. Fore wing with veins 6, 7 stalked, ♂ with a hyaline vesicle beyond the cell; palpi projecting about the length of head . . . . . . . . . . . . . . . . . . . . . . . . . . 3. THYRIDOPHORA, [p. 39.
  *b'*. Fore wing with veins 6, 7 from cell.
    *a*². Frons flat and oblique; fore wing with the apex rounded . . . . . . . . . . 11. CIRRHOCHRISTA, [p. 49.
    *b*². Frons with a rounded projection; palpi once to twice the length of head . . . . . . . . . . . . . . . . . . . . . . . . . 9. SCIRPOPHAGA, [p. 45.
    *c*². Frons with a slight tuft; palpi three to four times length of head . . . . . . . . 10. SCHŒNOBIUS, p. 47.

## Genus NIPHOPYRALIS.

Niphopyralis, *Hmpsn. Ill. Het.* ix, p. 181 (1893).

Type, *N. nivalis*, Hmpsn.
*Range*. Bhután; Bombay; Ceylon; Borneo.
Palpi upturned, smoothly scaled, and hardly reaching vertex of head; maxillary palpi minute; frons rounded; antennæ of male bipectinate; tibiæ with the spurs nearly equal. Fore wing short and rounded; vein 3 from near angle of cell; 4, 5 from angle; 7 well separated from 8, 9; 10, 11 free. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4237. **Niphopyralis nivalis**, *Hmpsn. Ill. Het.* ix, p. 181, pl. 174, fig. 6.

♂. White. Fore wing suffused with pale brown except the costal area; an ill-defined somewhat sinuous antemedial dark line; slight dark discocellular marks; the apex and margin white, sending a tooth inwards on vein 2, and with two black specks below apex and two above outer angle. Hind wing pure white, with black marginal specks at vein 2.

Fig. 23.—*Niphopyralis nivalis*, ♂. $\frac{2}{1}$.

*Hab*. Ceylon. *Exp*. 16 millim.

4238. **Niphopyralis contaminata**, *Hmpsn. Ill. Het.* ix, p. 181, pl. 174, fig. 14.

♂. Differs from *nivalis* in the metathorax being fuscous. Fore wing pure white; traces of a sinuous antemedial line; a diffused black patch on discocellulars and costa above end of cell; the whole outer area fuscous black, except the apex and margin, on which the black specks are present.
*Hab*. Ceylon. *Exp*. 16 millim.

4239. **Niphopyralis albida**, *Hmpsn. Ill. Het.* ix, p. 181, pl. 174, fig. 25.

Niphopyralis suffidalis, *Swinh. A. M. N. H.* (6) xvi, p. 299.

Pure white. Fore wing with a few dark scales on discocellulars, and traces of a pale fulvous oblique streak across apical area; a black marginal speck on vein 2 of each wing.

The Ceylon female is slightly sullied with fuscous and has a slight marginal fuscous line, and the form *suffidalis* has the hind wing mostly suffused with fuscous.

*Hab.* Bhután; Bombay; Ceylon; Borneo. *Exp.*, ♂ 16, ♀ 20–22 millim.

## Genus BANEPA.

Banepa, *Moore, Lep. Atk.* p. 204 (1888).

Type, *B. atkinsoni*, Moore.

*Range.* Sikhim.

Palpi with the 2nd joint long, porrect, and clothed with hair, the 3rd upturned and long; maxillary palpi well developed and triangularly scaled; proboscis minute; antennæ of male bipectinated; legs smoothly scaled, the spurs long. Fore wing with the costa arched at base, then straight; the apex produced; the outer margin excised from apex to vein 5, where it is excurved, then oblique to outer angle; vein 3 from before angle of cell; 4, 5 from angle; 7, 8, 9, 10 stalked. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 on a long stalk.

4240. **Banepa atkinsoni**, *Moore, Lep. Atk.* p. 204; *C. & S.* no. 4491.

Fig. 24.—*Banepa atkinsoni*, ♂. 1/1.

Pale rufous, thickly suffused with fuscous. Fore wing with slightly sinuous antemedial line with pale inner edge; black cell-spot; curved and minutely dentate postmedial line with pale outer edge. Hind wing pale, with indistinct minutely dentate curved postmedial line. Underside pale, with slight fuscous suffusion; both wings with cell-spots, curved crenulate postmedial and marginal series of specks; fore wing with black spot on costa before the postmedial line; hind wing with black patch on outer margin near anal angle.

*Hab.* Sikhim. *Exp.*, ♂ 34, ♀ 38 millim.

## Genus THYRIDOPHORA.

Thyridophora, *Warr. P. Z. S.* 1888, p. 310.

Type, *T. furia*, Swinh.

*Range.* Aden; N.W. India.

Palpi porrect and smoothly scaled, projecting about the length

of head, the 3rd joint down-curved; maxillary palpi long and somewhat dilated at extremity; frons flat and oblique; antennæ thickened and flattened; legs short, the tibiæ hairy, with the spurs nearly equal. Fore wing with the apex produced and outer margin oblique; the cell very long; vein 3 from before angle; 4, 5 well separated at origin; male with a hyaline vesicle beyond upper angle below veins 6, 7, which are stalked. Hind wing with the cell very long; vein 3 from near angle; 4, 5 from angle; 6, 7 shortly stalked.

4241. **Thyridophora furia**, *Swinh. P. Z. S.* 1884, p. 519, pl. 47, fig. 13; *C. & S.* no. 1901.

Thyridophora fenestrata, *Warr. P. Z. S.* 1888, p. 311; *C. & S.* no. 1773 B.

Fig. 25.—*Thyridophora furia*, ♂. 2/1.

♂. Dull ochreous, more or less suffused with fuscous. Fore wing with traces of oblique dark medial line and oblique line from apex.

*Hab.* Aden; Campbellpur; Karáchi. *Exp.* 14 millim.

## Genus LEUCOIDES.

Leucoides, *Hmpsn. Ill. Het.* ix, p. 167 (1893).

Type, *L. fuscicostalis*, Hmpsn.

*Range.* Ceylon.

Palpi porrect, slightly scaled, and extending about twice the length of head; maxillary palpi long and somewhat dilated at extremity; frons produced and acute; antennæ of male minutely serrate and ciliated; legs long and slender, the outer spurs about two-thirds length of inner; abdomen long; wings long and narrow. Fore wing with the apex produced and acute; the outer margin oblique; vein 3 from angle of cell; 4, 5 stalked; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 becoming coincident with 12. Hind wing with vein 3 from near angle of cell; 4, 5 stalked; 6, 7 stalked.

Fig. 26.—*Leucoides fuscicostalis*, ♂. 1/1.

4242. **Leucoides fuscicostalis**, *Hmpsn. Ill. Het.* ix, p. 168, pl. 172, fig. 18.

♂. Pure white; palpi, sides of frons, and fore legs rufous. Fore

wing with the costal area fuscous brown; traces of ante- and postmedial series of rufous specks on the veins.

*Hab.* Ceylon. *Exp.* 20 millim.

## Genus RAMILA.

Ramila, *Moore, P. Z. S.* 1867, p. 667.
Crambostenia, *Swinh. Trans. Ent. Soc.* 1890, p. 292.

Type, *R. marginella*, Moore.

*Range.* India; Ceylon; Burma; Borneo; Australia.

Palpi porrect and slightly scaled, the 3rd joint downcurved; maxillary palpi dilated with scales, and nearly as long as the labial; frons produced to a rounded projection nearly as long as the palpi; antennæ ciliated; tibiæ slightly hairy, the spurs short. Fore wing with the apex produced to a point; vein 3 from before angle of cell; 4, 5 from angle; 6 from near upper angle; 7, 8, 9 stalked; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 stalked.

4243. **Ramila marginella,** *Moore, P. Z. S.* 1867, p. 667, pl. 33, fig. 16; *C. & S.* no. 4660.

Silvery white; palpi and sides of frons fulvous and fuscous. Fore wing with the membrane crenulated; the costa fulvous and fuscous; a speck at middle of cell conjoined to the costal fascia; two discocellular specks; both wings with an oblique dark line from lower angle of cell to inner margin; a slight sinuous postmedial oblique line; a marginal black line; the cilia orange, with a black line through them from apex to vein 2 of hind wing.

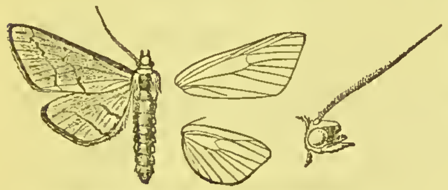

Fig. 27.—*Ramila marginella*, ♂. 1/1.

*Hab.* Sikhim. *Exp.*, ♂ 48, ♀ 56 millim.

4244. **Ramila ruficostalis,** *Hmpsn. Ill. Het.* ix, p. 166, pl. 173, fig. 22.

♂. Differs from *marginella* in the costa of fore wing being brilliant ferruginous red; the lines ferruginous and interrupted; the medial line of fore wing arising from the speck at middle of cell; the cilia without a black line through them, and the marginal line more maculate on fore wing.

*Hab.* Ceylon. *Exp.* 30 millim.

4245. **Ramila angustifimbrialis,** *Swinh. Trans. Ent. Soc.* 1890, p. 293; *Warr. A. M. N. H.* (6) ix, p. 430.

♂. Differs from *marginella* in the metathorax being yellow. Fore wing with the membrane non-crenulate; the lines obsolescent; the marginal line more maculate.

*Hab.* Rangoon. *Exp.* 20–26 millim.

4246. **Ramila acciusalis**, *Wlk. Cat.* xix, p. 977; *Moore, Lep. Ceyl.* iii, pl. 184, f. 5; *C. & S.* no. 4658.

Differs from *marginella* in the membrane of fore wing being non-crenulate, the costal fascia more orange; the lines orange; the medial line arising from the spot at middle of cell; a single discocellular lunule; the postmedial line excurved to outer angle; the marginal line more maculate.

*Hab.* Sikhim; Ceylon; Borneo. *Exp.* 26 millim.

## Genus EURYCRASPEDA.

Eurycraspeda, *Swinh. Trans. Ent. Soc.* 1890, p. 284.

Type, *E. burmanalis*, Swinh.

*Range.* Burma.

Palpi porrect, slightly scaled, and projecting about twice the length of head; maxillary palpi long and dilated with scales at extremity; antennæ ciliated; abdomen long, with lateral tufts of hair towards extremity; wings long and narrow. Fore wing with vein 3 from before angle of cell; 4 and 5 well separated at origin; 7 straight and well separated from 8 and 9; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4 and 5 well separated at origin; 6 and 7 stalked.

4247. **Eurycraspeda burmanalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 285, pl. 7, fig. 19.

♂. Head, thorax, and abdomen black-brown and white. Fore wing black-brown; the inner basal area white; a broad submarginal white band with dentate edges traversed by a minutely dentate black line and leaving a dentate black marginal band. Hind wing with the basal two-thirds pale fuscous except the inner area, and with a diffused black patch on inner area at its outer edge; the outer area white; the cilia fuscous from apex to vein 2.

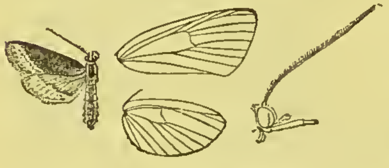

Fig. 28.
*Eurycraspeda burmanalis*, ♂. 1/1.

*Hab.* Burma. *Exp.* 20 millim.

## Genus BRIHASPA.

Brihaspa, *Moore, P. Z. S.* 1867, p. 666.

Type, *B. atrostigmella*, Moore.

*Range.* Brazil; S. Africa; N.E. India; Burma.

Palpi porrect, clothed with rough hair, and extending about twice the length of head; maxillary palpi long and dilated with scales at extremity; frons with a sharp tuft; antennæ of male minutely serrate and ciliated; tibiæ with the outer spurs about

two-thirds length of inner. Fore wing broad, the apex rounded; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9, 10, which are stalked; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 well separated at origin; 6, 7 on a long stalk and 7 anastomosing with 8 almost to apex.

4248. **Brihaspa atrostigmella**, *Moore, P. Z. S.* 1867, p. 666, pl. 33, fig. 13; *C. & S.* no. 4657.

♂. White; palpi and fore legs black; antennæ ochreous. Fore wing with black fascia on base of costa sometimes curving round and joining the antemedial spot; subbasal and antemedial black spots below costa; a black spot at each angle of cell and one below vein 2. Hind wing with yellow spot below lower angle of cell; a submarginal spot on vein 2 and one at anal angle.

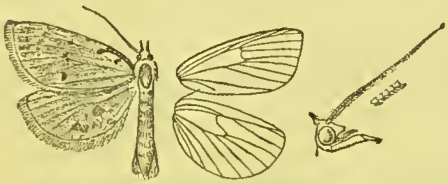

Fig. 29.—*Brihaspa atrostigmella*, ♂. ¼.

*Hab.* Sikhim; Moulmein; Rangoon. *Exp.* 42–54 millim.

4249. **Brihaspa bisangulata**, *Hmpsn. P. Z. S.* 1895, p. 910.

White. Fore wing with indistinct interrupted fulvous subbasal band; an oblique fulvous band from costa to discocellulars, where it is met by a V-shaped fulvous mark on outer part of costa, its apex on vein 5, and by a band running from apex to vein 3, then recurved to discocellulars; a large fuscous patch between lower angle of cell and inner margin. Hind wing with the discal area from before middle to near outer margin occupied by a fuscous patch, becoming fulvous on subapical area.

*Hab.* Sikhim. *Exp.* 18 millim.

## Genus PATISSA.

Patissa, *Moore, Lep. Ceyl.* iii, p. 388 (1886).

Type, *P. lactealis*, Feld.

*Range.* Nearctic and Neotropical regions; S. Africa; Japan; India, Ceylon, and Burma; Java.

Palpi porrect, clothed with rough hair, and extending about the length of head; maxillary palpi dilated with scales; frons with a slight tuft; antennæ of male minutely serrate and ciliated; legs long and slender, the outer spurs about two-thirds length of inner. Fore wing with the apex somewhat produced and outer margin oblique; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9, 10, which are stalked; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 well separated at origin; 6, 7 stalked.

4250. **Patissa latifuscalis**, *Hmpsn. P. Z. S.* 1895, p. 911.

♀. White; palpi and pectus fuscous black. Fore wing with the costal area fuscous black; a basal black patch not reaching inner margin; a medial black band very wide on costa and extending nearly to apex, narrowing to inner margin; a series of black spots on the cilia. Hind wing with diffused fuscous postmedial line, developed into a patch on middle of inner margin.

*Hab.* Sibságar. *Exp.* 26 millim.

4251. **Patissa lactealis**, *Feld. Reis. Nov.* pl. 137, fig. 38; *C. & S.* no. 4666.

♂. White irrorated with fuscous brown. Fore wing with obscure subbasal brown line; prominent curved antemedial line; the postmedial line nearly straight from costa to vein 3, then recurved to costa and enclosing two black spots on discocellulars in a figure-of-8 shaped mark, angled outwards on vein 2, and oblique to inner margin; a minutely dentate submarginal brown line and series of specks on the cilia. Hind wing pure white, with a brown lunule on inner margin above anal angle, and brown line from vein 2 to inner margin near anal angle.

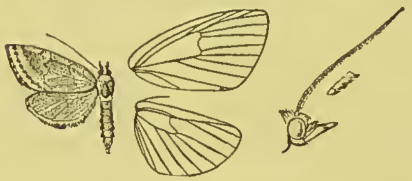

Fig. 30.—*Patissa lactealis*, ♂. 1/1.

♀. Much less irrorated with brown. Fore wing with the retracted figure-of-8 shaped portion of the postmedial line and discocellular specks obsolescent; the submarginal line white. Hind wing pure white.

*Hab.* Nilgiris; Ceylon. *Exp.*, ♂ 20, ♀ 22 millim.

4252. **Patissa fulvosparsa**, *Butl. Trans. Ent. Soc.* 1881, p. 591.
Metasia candidulalis, *Swinh. P. Z. S.* 1885, p. 880, pl. 57, fig. 6; *C. & S.* no. 4665.
Donacaula chlorosema, *Meyr. Trans. Ent. Soc.* 1894, p. 11.
Patissa tortualis, *Snell. Tijd. v. Ent.* 1893, p. 58, pl. 3, fig. 3.

White. Fore wing with obscure yellow curved subbasal and antemedial lines; the postmedial yellow line straight from costa to vein 5, retracted almost to costa in the form of a figure of 8 with a black spot at lower angle of cell, angled on vein 2 and oblique to inner margin; a curved submarginal yellow band. Hind wing white, with slight yellow marks on inner and outer margins near anal angle.

*Hab.* Japan; Dharmsála; Kúlú; Poona; Nilgiris; Shán States; Java. *Exp.*, ♂ 18, ♀ 20 millim.

4253. **Patissa erythrozonalis**, *Hmpsn. P. Z. S.* 1895, p. 911.

Pure white; palpi and fore legs slightly tinged with fulvous.

Fore wing with slightly oblique ferruginous band from upper angle of cell to inner margin; three ferruginous specks below costa towards apex and a marginal series of specks.

*Hab.* Meean Meer, Punjab; Nilgiris; Ceylon. *Exp.* 14 millim.

4254. **Patissa luteifrons**, n. sp.

♂. Silky white; palpi, frons, and basal joint of antennæ fulvous yellow; antennæ serrated with brown; abdomen and legs tinged with yellow, the latter fuscous above. Fore wing with the costa narrowly fulvous yellow.

*Hab.* Calcutta (*Atkinson*). *Exp.* 28 millim. Type in B. M.

4255. **Patissa virginea**, *Zell. Mon. Chil. & Cramb.* p 2.
Crambus multivagellus, *Swinh. P. Z. S.* 1886, p. 462; *C. & S.* no. 4698.

Pure white; palpi and legs slightly tinged with fulvous. Fore wing sometimes with black speck at upper angle of cell.

*Hab.* S. Africa; Mhow; Nilgiris; Ceylon. *Exp.* 22 millim.

4256. **Patissa curvilinealis**, *Hmpsn. P. Z. S.* 1895, p. 912.

Yellowish white; palpi and antennæ tinged with rufous. Fore wing with the basal two-thirds of costa reddish brown; a curved brown line from costa near apex to near base of inner margin; a marginal brown line. Hind wing white, with faiut traces of an oblique medial brown line and a fine marginal line.

*Hab.* Ceylon (*Pole*). *Exp.*, ♂ 12, ♀ 18 millim.

## Genus SCIRPOPHAGA.

Scirpophaga, *Treitschke, Schmett. Eur.* ix, 1, p. 55 (1832).
Apurima, *Wlk. Cat.* xxvii, p. 194 (1863).

Type, *S. prælata*, Scop., from Europe.

*Range.* Universally distributed.

Palpi porrect, extending from once to twice the length of head, slightly clothed with hair, and with the 3rd joint downcurved; maxillary palpi rather short and dilated with scales; a slight rounded frontal projection; antennæ of male minutely serrated, ciliated; patagia of male with spreading upturned hair; tibiæ with the outer spurs about half the length of inner; abdomen long, in female expanding at extremity and with very large anal tuft; wings long and narrow. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9; 10 and 11 free, or 11 becoming coincident with 12. Hind wing with vein 3 from near angle of cell; 6, 7 from upper angle.

Sect. I. Hind wings with veins 4, 5 well separated at origin.

4257. **Scirpophaga auriflua**, *Zell. Mon. Chil. & Cramb.* p. 2; *C. & S.* no. 4655.
Apurima xanthogastrella, *Wlk. Cat.* xxvii, p. 194; *Moore, Lep. Ceyl.* iii, pl. 184, fig. 14; *C. & S.* no. 4654 (part.).
Scirpophaga intacta, *Snell. Tijd. v. Ent.* 1891, p. 343, pl. xviii, figs. 1–4.

Pure white; the anal tuft orange, sometimes brownish in the female, or in the form *intacta* rosy pink.

*Hab.* Congo; Shanghai; throughout India, Ceylon, and Burma; Borneo; Java. *Exp.*, ♂ 28–30, ♀ 24–50 millim.

4258. **Scirpophaga monostigma**, *Zell. Mon. Chil. & Cramb.* p. 3.

♂. Differs from *auriflua* in the fore wing having a black spot at lower angle of cell.

*Hab.* Campbellpur; Bhután. *Exp.* 22–30 millim.

4259. **Scirpophaga chrysorrhoa**, *Zell. Mon. Chil. & Cramb.* p. 1.
Tipanæa innotata, *Wlk. Cat.* xxviii, p. 523.

Differs from *auriflua* in the fore wing being suffused with pale golden yellow.

*Hab.* China; Mergui; Borneo; Java; Ceram. *Exp.*, ♂ 30, ♀ 30–38 millim.

4260. **Scirpophaga gilviberbis**, *Zell. Mon. Chil. & Cramb.* p. 2; *C. & S.* no. 4656.
Scirpophaga fusciflua, *Hmpsn. Ill. Het.* ix, p. 167, pl. 172, figs. 29, 30.

Differs from *auriflua* in the outer hairs of the anal tuft being white, the inner brown; underside of fore wing in male suffused with fuscous.

*Hab.* Calcutta; Nilgiris; Ceylon; Burma. *Exp.*, ♂ 16–18, ♀ 18–24 millim.

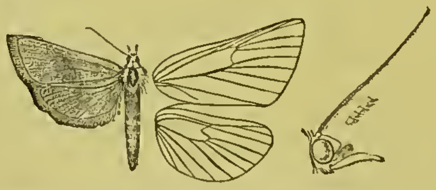

Fig. 31.—*Scirpophaga excerptalis*, ♂. ½.

4261. **Scirpophaga excerptalis**, *Wlk. Cat.* xxvii, p. 142; *C. & S.* no. 4672.

Differs from *gilviberbis* in its larger size.

*Hab.* China; N.W. Himalayas; Borneo. *Exp.* ♂ 24–30, ♀ 30–38 millim.

4262. **Scirpophaga bisignata**, *Swinh. P. Z. S.* 1885, p. 878; *C. & S.* no. 4662.

Brownish ochreous. Fore wing with black spots at lower angle of cell and on middle of vein 1; traces of a speck on vein 1 towards outer angle. Hind wing whitish.

*Hab.* Karáchi; Poona; Mhow; Calcutta. *Exp.* 16 millim.

SECT. II. Hind wings with veins 4, 5 closely approximated for some distance, or stalked.

4263. **Scirpophaga cramboides**, *Wlk. Cat.* xxxi, p. 230; *C. & S.* no. 4654 (part.).

♂. Yellowish; palpi orange; legs fulvous. Fore wing with the costa orange; underside of fore wing suffused with fuscous.

♀. White, slightly sullied with fuscous; palpi fulvous; underside of fore wing and costa of hind wing suffused with fuscous.

*Hab.* Simla; Dharmsála. *Exp.*, ♂ 26, ♀ 34–36 millim.

## Genus SCHŒNOBIUS.

Schœnobius, *Dup. Cat. Lép. Eur.* p. 312 (1844).
Catagela, *Wlk. Cat.* xxvii, p. 191 (1863).
Panalipa, *Moore, Lep. Ceyl.* iii, p. 386 (1886).
Microschœnis, *Meyr. Trans. Ent. Soc.* 1887, p. 270.

Type, *S. gigantellus*, Schiff., from Europe.

*Range.* Universally distributed.

Palpi porrect, roughly scaled, the 2nd joint two to three times, the 3rd about length of head; maxillary palpi dilated with scales; frons with a slight tuft; antennæ of male minutely serrate and ciliated; legs long; tibiæ with the outer spurs about two-thirds length of inner; abdomen long, in female dilated at extremity and with a large anal tuft; wings long and narrow. Fore wing with the apex rounded in male, more produced in female; vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9; 10, 11 free, or 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 shortly stalked, 7 anastomosing slightly with 8 or free.

SECT. I. (*Panalipa*). Palpi with the 2nd joint about twice the length of head.

4264. **Schœnobius immeritalis**, *Wlk. Cat.* xix, p. 830; *C. & S.* no. 4689.

Araxes decursella, *Wlk. Cat.* xxvii, p. 194.

♂. Bright ochreous yellow; hind wing paler.

♀. Paler ochreous or straw-yellow; the anal tuft fulvous. Hind wing whitish.

*Hab.* Dharmsála; Calcutta; Ceylon; Siam. *Exp.*, 14–20, ♀ 14–28 millim.

SECT. II. (*Schœnobius*). Palpi with the 2nd joint about three times length of head.

4265. **Schœnobius bipunctifer**, *Wlk. Cat.* xxviii, p. 523; *Moore, Lep. Ceyl.* iii, pl. 184, fig. 13; *C. & S.* no. 4661.
Chilo gratiosellus, *Wlk. Cat.* xxx, p. 967.
Schœnobius punctellus, *Zell. Mon. Chil. & Cramb.* p. 4.

Fig. 32.—*Schœnobius bipunctifer*, ♀. ½.

♀. Head, thorax, and abdomen yellowish white. Fore wing suffused with orange-yellow; a black spot at lower angle of cell. Hind wing white, often tinged with yellow towards outer margin.

*Hab.* China; Formosa; throughout India, Ceylon, and Burma; Sumatra; Java; Borneo. *Exp.* 24–36 millim.

4266. **Schœnobius dodatellus**, *Wlk. Cat.* xxx, p. 966; *C. & S.* no. 4671.
Chilo aditellus, *Wlk. Cat.* xxx, p. 967.

♂. Head and thorax ochreous, suffused with coppery red; abdomen ochreous. Fore wing ochreous, thickly streaked with coppery red; the costal area fuscous to near apex; a diffused fuscous streak on median nervure and vein 5, bent up to apex; two black spots on discocellulars; a speck at origin of vein 2, and three specks on vein 1; a marginal series of black specks. Hind wing white.

♀. Usually with the fore wing much less prominently streaked with red.

*Hab.* Japan; Khásis; Ceylon; Moulmein; Rangoon. *Exp.*, ♂ 24, ♀ 26–40 millim.

4267. **Schœnobius adjurellus**, *Wlk. Cat.* xxvii, p. 191; *C. & S.* no. 4682.
Schœnobius brunnescens, *Moore, Lep. Atk.* p. 225; *C. & S.* no. 4663.

♂. Head, thorax, and fore wing glossy reddish brown, the last with dark specks below middle and at lower angle of cell; an obliquely curved, minutely dentate dark line from costa just before apex, becoming obsolescent towards middle of inner margin; a marginal series of dark specks; abdomen and hind wing pale, the latter with the apical area brownish.

*Hab.* Assam; Calcutta; Ceylon. *Exp.* 20–24 millim.

4268. **Schœnobius incertellus** (*incertulas*), *Wlk. Cat.* xxvii, p. 143.
Catagela admotella, *Wlk. Cat.* xxvii, p. 192; *C. & S.* no. 4683.
Schœnobius minutellus, *Zell. Mon. Chil. & Cramb.* p. 6.

♂. Brownish ochreous. Fore wing irrorated with dark scales

and the veins slightly streaked with fuscous; a black spot at lower angle of cell; an oblique fuscous line from apex to vein 2; a marginal series of black specks. Hind wing ochreous white.

♀. Fuscous brown; the hind wing pale fuscous.

*Hab.* Nágas; Calcutta; Ceylon; Rangoon; Borneo; Java. *Exp.*, ♂ 18–22, ♀ 34 millim.

4269. **Schœnobius auristrigellus**, *Hmpsn. P. Z. S.* 1895, p. 916.

♂. White; palpi and shoulders golden yellow; abdomen slightly tinged with fuscous and with a dorsal yellow patch on 1st segment. Fore wing with golden-yellow fasciæ in the interspaces; a black spot at lower angle of cell; an oblique yellow line from apex to middle of inner margin. Hind wing pure white.

*Hab.* Bhután. *Exp.* 24 millim.

4270. **Schœnobius costalis**, *Moore, Lep. Ceyl.* iii, p. 388, pl. 184, fig. 15; *C. & S.* no. 4653.

♂. Almost pure shining white; palpi pale rufous; pectus and legs fuscous. Fore wing with the costa black; underside of fore wing suffused with fuscous.

*Hab.* Ceylon. *Exp.* 28 millim.

## Genus CIRRHOCHRISTA.

Cirrhochrista, *Led. Wien. ent. Mon.* 1863, p. 440.

Type, *C. ætherialis*, Led., from Amboina and Ternate.

*Range.* Japan; Oriental region to N. Australia.

Palpi porrect, thickly clothed with hair, the 3rd joint hidden by hair and downcurved; maxillary palpi long and triangularly scaled at extremity; frons oblique; antennæ ciliated; tibiæ clothed on outer side with rough hair, the outer spurs less than half the length of inner. Fore wing with the apex produced; the outer margin oblique; veins 3, 4, 5 from angle of cell; 7 curved and very closely approximated for a short distance to, or well separated from, 8, 9, to which 10 also is approximated. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 shortly stalked.

Sect I. Palpi projecting about the length of head and with a tuft of porrect hair from 1st joint.

4271. **Cirrhochrista pulchellalis**, *Led. Wien. ent. Mon.* 1863, p. 441, pl. 17, fig. 10.
Cirrhochrista ætherialis, *Hmpsn. Ill. Het.* ix, p. 46 (*nec Led.*).

White; palpi, antennæ, collar, and shoulders fulvous; abdomen with dorsal maculate band, the spots on 1st two segments small, then very large. Fore wing with the costa fulvous; an outwardly oblique dark-edged fulvous antemedial band expanding on inner margin; a dark-edged triangular fulvous patch from

middle of costa extending to lower angle of cell; an oblique fulvous dark-edged band across the apex; a fulvous and dark marginal band with sinuous inner edge and expanding into a large patch at outer angle. Hind wing with dark marginal band and the cilia orange between veins 6 and 2.

Fig. 33.—*Cirrhochrista pulchellalis*, ♂. 1/1.

*Hab.* Ceylon; Java; Amboina. *Exp.* 30 millim.

4272. **Cirrhochrista semibrunnea**, *Hmpsn. P. Z. S.* 1895, p. 918.

♀. Head brown with the vertex white; thorax and abdomen brown, the middle of collar, patagia, and sides of basal segment of abdomen white. Fore wing brown, with a large white patch on basal inner area; a large crescentic white mark in cell and much larger similar mark beyond the cell; a quadrate apical white patch; a yellow discocellular line and series of yellow marginal marks below the apical patch. Hind wing white; a large round brown submarginal spot between veins 2 and 3; some yellow on medial part of margin; a brown marginal line; cilia fulvous at base; inner area tinged with fuscous.

*Hab.* Bhután. *Exp.* 36 millim.

Sect. II. Palpi projecting about twice the length of head and with no tuft from basal joint.

4273. **Cirrhochrista brizoalis**, *Wlk. Cat.* xix, p. 976; *Moore, Lep. Atk.* pl. 7, fig. 10; *C. & S.* no. 4659.
Cirrhochrista figuratalis, *Wlk. Cat.* xxxiv, p. 1369.

Differs from *pulchellalis* in the dorsal maculate band being reduced or altogether absent. Fore wing with triangular spot from costa replacing the antemedial band; the oblique line across apex interrupted and obsolescent; the marginal band not expanding at outer angle. Hind wing with the marginal band narrow and extending nearly to anal angle.

*Hab.* Japan; China; Formosa; N.W. Himalayas; Bombay; Nilgiris; Borneo; Celebes; Australia. *Exp.* 22–28 millim.

4274. **Cirrhochrista fumipalpis**, *Feld. Reis. Nov.* pl. 135, fig. 31.

Yellowish white; palpi rufous; abdomen with rufous and silvery lateral marks towards extremity. Fore wing with the costa orange and fulvous with a silver line on it; an outwardly-oblique antemedial fulvous and orange line; a triangular fulvous and orange patch with silvery marks on it from costa to lower angle of cell, giving off from its apex a sinuous line to inner margin and oblique

streak to outer margin above outer angle, the two connected by a streak which is also connected with outer angle; an oblique orange and fulvous line across apical area; a marginal orange and fulvous band with a silver line. Hind wing white with slight orange marginal specks.

*Hab.* Sikhim; Nágas; Burma; Moluccas. *Exp.* 32 millim.

4275. **Cirrhochrista bracteolalis**, *Hmpsn. Ill. Het.* viii, p. 135, pl. 155, fig. 3.

Head and thorax white; palpi and abdomen above fuscous. Fore wing white suffused with fuscous brown; a white patch at base not reaching costa; a silvery fascia below base of costa; an incurved silvery antemedial band; a silver spot at upper angle of cell; a postmedial sinuous series of spots; three silvery spots below costa with an orange streak and white patch from them to apex; a marginal series of silver specks. Hind wing white.

*Hab.* Sikhim; Nilgiris; Ceylon. *Exp.* 30 millim.

## Subfamily ANERASTIINÆ.

Proboscis absent or minute. Fore wing with vein 1 *a* separate from 1 *b*; 7 absent. Hind wing with the median nervure pectinated above; vein 7 usually anastomosing with 8.

### *Key to the Genera.*

A. Hind wing with two veins arising from median nervure.
- *a*. Palpi upturned * .................... 1. MENUTHIA, p. 52.
- *b*. Palpi porrect ........................ 2. CALERA, p. 52.

B. Hind wing with three veins arising from median nervure.
- *a*. Fore wing with three veins arising from median nervure.
  - *a'*. Fore wing with vein 10 stalked with 8, 9.
    - *a²*. Fore wing with vein 5 from above angle of cell, 2 from near angle.... 3. AMBALA, p. 53.
    - *b²*. Fore wing with vein 5 from angle of cell, 2 from well before angle...... 4. HYPSOTROPHA, [p. 54.
  - *b'*. Fore wing with vein 10 from the cell.. 5. ANERASTIA, p. 55.
- *b*. Fore wing with four veins arising from median nervure.
  - *a'*. Fore wing with vein 10 stalked with 8, 9. 6. PATNA, p. 57.
  - *b'*. Fore wing with vein 10 from the cell.
    - *a²*. Fore wing with veins 4, 5 stalked .. 7. POUJADIA, p. 58.

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* In one specimen vein 4 of the hind wing is given off just before the margin.

$b^2$. Fore wing with veins 4, 5 from the cell .............................. 8. CRITONIA, p. 60.
C. Hind wing with four veins arising from median nervure ........................ 9. POLYOCHA, p. 61.

## Genus MENUTHIA.

Menuthia, *Rag. Nouv. Gen.* p. 50 (1888).

Type, *M. nanella*, Rag., from Zanzibar.
*Range*. E. Africa; Ceylon.

Palpi slender, upturned, and reaching above vertex of head; maxillary palpi absent; frons rounded; antennæ of male somewhat thickened; mid and hind tibiæ fringed on outer side with rough hair. Fore wing with vein 2 from near angle of cell; 4 absent, 10 given off from 8, 9. Hind wing with veins 2 and 5 from angle of cell; 3, 4 absent, or 4 rarely given off from 5 just before the margin; 6, 7 stalked; 7 anastomosing with 8.

In the typical section veins 3, 5 of fore wing are stalked.

SECT. II. Fore wing with veins 3, 5 from cell.

### 4276. Menuthia fissirella, n. sp.

♂. Head and thorax whitish irrorated with brown; abdomen pale ochreous at base. Fore wing white irrorated with brown; the veins white; a brown streak below median nervure. Hind wing pure white.

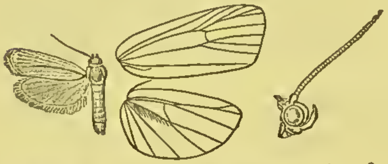

Fig. 34.—*Menuthia fissirella*, ♂. $\frac{3}{2}$.

In one specimen vein 4 of hind wing is given off just before the margin.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 14 millim. Type in B.M.

### 4277. Menuthia discipunctella, n. sp.

♂. Ochreous. Fore wing irrorated with fuscous; obliquely placed antemedial black spots on median nervure and inner margin; a prominent black spot at lower angle of cell; an oblique submarginal black line bent outwards to apex; a marginal series of black specks. Hind wing white, the apex tinged with fuscous.

*Hab.* Ceylon (*Pole*). *Exp.* 12 millim. Type in B. M.

## Genus CALERA.

Calera, *Rag. Nouv. Gen.* p. 50 (1888).

Type, *C. punctilimbella*, Rag., from N. America.
*Range*. Nearctic region; S. India.

Palpi porrect, extending about twice the length of head, the 3rd joint downcurved and acute; maxillary palpi filiform; frons with a large conical tuft; antennæ of male somewhat thickened.

Fore wing long and narrow; vein 2 from close to angle of cell; 4 absent; 10 arising from 8, 9. Hind wing with veins 2 and 5 from angle of cell; 3 and 4 absent; 7 anastomosing with 8.

In the typical section veins 3, 5 of fore wing and 6, 7 of hind wing are stalked.

SECT. II. Fore wing with veins 3, 5, hind wing with veins 6, 7 from cell.

4278. **Calera rosella**, n. sp.

Anerastia virginella, *Hmpsn. Ill. Het.* viii, p. 41 (*nec Meyr.*).

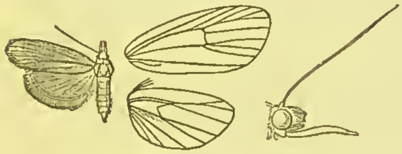

Fig. 35.—*Calera rosella*, ♀. 1/1.

♀. Head and thorax pale rose-pink; abdomen ochreous white. Fore wing pale rose-pink, the veins streaked with white. Hind wing yellowish white.

*Hab.* Nilgiris (*Hampson*). *Exp.* 24 millim. Type in B. M.

## Genus AMBALA.

Ambala, *Rag. Nouv. Gen.* p. 45 (1888).

Type, *A. fuscostrigella*, Rag.

*Range.* S. Africa; N.W. India.

Palpi oblique and reaching above vertex of head, the 2nd joint in male hollowed out to receive the brush-like maxillary palpi; antennæ of male with long uniseriate branches, a sinus at base of shaft with a large ridge of scales in it; mid and hind tibiæ fringed with hair on outer side. Fore wing with vein 2 from near angle of cell; 3 and 5 well separated at origin; 4 absent; 8, 9, 10 stalked. Hind wing with vein 2 from close to angle of cell; 4 absent; 3 and 5 stalked; 6, 7 from upper angle; 8 free.

4279. **Ambala fuscostrigella**, *Rag. Nouv. Gen.* p. 45; *id. Mon. Phyc.* pl. xxxviii, fig. 10; *C. & S.* no. 4627.

♂. Head and thorax ochreous white; abdomen ochreous.

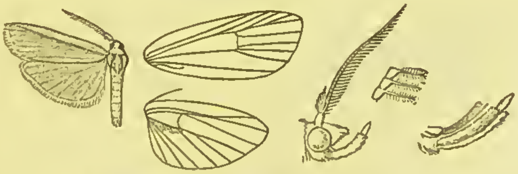

Fig. 36.—*Ambala fuscostrigella*, ♂. 1/1.

Fore wing yellowish white, with a broad costal white fascia not reaching the apex; the area below it suffused with rufous brown;

a marginal series of dark specks. Hind wing white; the apical part of costa tinged with rufous.

*Hab.* Punjab. *Exp.* 28 millim.

## Genus HYPSOTROPHA.

Hypsotropa, *Zell. Isis,* 1848, p. 591.
Heosphora, *Meyr. P. Linn. Soc. N. S. W.* vii, p. 158 (1882).
Talamba, *Rag. Nouv. Gen.* p. 47 (1888).

Type, *H. limbella*, Zell., from Europe.
*Range.* Europe; S. Africa; Syria; Amur; India; Australia.

Palpi extending three or four times length of head and fringed with hair above, in male with the second joint hollowed out to receive the brush-like maxillary palpi; antennæ of male with a sinus at base containing a ridge of scales. Fore wing with vein 2 from well before angle of cell; 4 absent; 3 and 5 from angle; 8, 9, 10 stalked. Hind wing with vein 2 from near angle of cell; 4 absent; 3, 5 stalked; 6, 7 from upper angle.

SECT. I. Hind wing with vein 7 anastomosing with 8.

A. (Hypsotropha). *Palpi obliquely upturned.*

a. *Male unknown.*

4280. **Hypsotropha sceletella,** *Zell. Stettin. ent. Zeit.* 1867, p. 404; *Rag. Mon. Phyc.* pl. xliv, fig. 22; *C. & S.* no. 4630.

♀. Head and thorax pale pink; abdomen ochreous with a fuscous tinge. Fore wing white; the veins strongly defined by pink lines. Hind wing white.

*Hab.* Calcutta. *Exp.* 30 millim.

b. *Antennæ of male with long uniseriate pectinations on basal third, the medial third ciliated, the distal third with short branches.*

4281. **Hypsotropha heterocerella,** n. sp.

Head and thorax grey and brown; abdomen ochreous, suffused

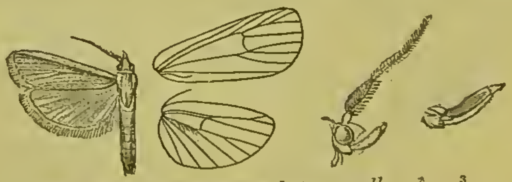

Fig. 37.—*Hypsotropha heterocerella*, ♂. $\frac{3}{2}$.

with fuscous towards extremity. Fore wing white, thickly irrorated with brown; the costal fascia rather whiter and defined

by a reddish-brown subcostal fascia; traces of a marginal series of dark specks. Hind wing white.

*Hab.* Meean Meer, Punjab (*Harford*). *Exp.* 18 millim. Type in B. M.

B. (Heosphora). *Palpi porrect.*

4282. **Hypsotropha laterculella,** *Zell. Stettin. ent. Zeit.* 1867, p. 403; *Rag. Mon. Phyc.* pl. xliv, fig. 21; *C. & S.* no. 4628.

♀. Head and thorax rufous; abdomen whitish tinged with brown. Fore wing yellowish rufous suffused with pink; a white costal fascia irrorated with pink and narrowing to apex; traces of a discocellular dark speck and series of postmedial specks. Hind wing white with a yellowish tinge.

*Hab.* Calcutta. *Exp.* 26 millim.

Sect. II. (*Talamba*). Hind wing with vein 8 free.

4283. **Hypsotropha tenuinervella,** *Rag. Nouv. Gen.* p. 47; *id. Mon. Phyc.* pl. xl, fig. 25; *C. & S.* no. 4629.

♀. Head and thorax white suffused with very pale pink; abdomen ochreous. Fore wing white irrorated with pink; the veins defined by fine pink lines. Hind wing pinkish white.

*Hab.* Punjab; Nilgiris. *Exp.* 24–32 millim.

## Genus ANERASTIA.

Anerastia, *Hübn. Verz.* p. 367 (? 1818).
Comorta, *Rag. Nouv. Gen.* p. 48 (1888).

Type, *A. lotella*, Hübn., from Europe.

*Range.* Neotropical, Palæarctic, Oriental, and Australian regions.

Palpi of female porrect, extending about twice the length of head and thickly scaled; antennæ of male thickened and flattened. Fore wing long and narrow, vein 4 absent, 5 from angle, 10 free. Hind wing with vein 2 from angle of cell, 4 absent, 3 and 5 stalked; 6, 7 stalked; 7 anastomosing with 8.

Sect. I. (*Anerastia*). Palpi of male porrect; maxillary palpi absent; antennæ with neither sinus nor ridge of scales at base.

A. *Frons rounded.*

4284. **Anerastia celsella,** *Wlk. Cat.* xxvii, p. 193; *Rag. Mon. Phyc.* pl. xl, fig. 7; *C. & S.* no. 4634.

♀. Head and thorax ochreous suffused with pink; abdomen ochreous. Fore wing ochreous, the costal area suffused with pink, an antemedial outwardly oblique pink band and inwardly oblique postmedial band; a discocellular speck. Hind wing yellowish white.

*Hab.* Ceylon. *Exp.* 20 millim.

B. *Frons with a long flattened corneous projection more or less buried in scales.*

4285. **Anerastia spinifrontella**, *Rag. Nouv. Gen.* p. 48; *id. Mon. Phyc.* pl. xl, fig. 2; *C. & S.* no. 4636.

Fig. 38.
*Anerastia spinifrontella*, ♂. 1/1.

Head whitish, the palpi tinged with brown; throax brown; abdomen ochreous. Fore wing ochreous suffused with reddish brown, especially below the broad costal fascia, which is whitish and narrows to apex. Hind wing white with a slight fuscous tinge.

*Hab.* Karáchi. *Exp.*, ♂ 18–22, ♀ 24 millim.

4286. **Anerastia ablutella**, *Zell. Isis*, 1839, p. 177.
Anerastia stigmatella, *Rag. Nouv. Gen.* p. 49; *id. Mon. Phyc.* pl. xl, fig. 4; *C. & S.* no. 4637.

Ochreous. Fore wing slightly irrorated with fuscous; a dark speck at lower angle of cell. Hind wing white.

The variety *stigmatella* has a reddish tinge and large discocellular spot.

*Hab.* Mediterranean subregion; Punjab. *Exp.* 13–18 millim.

4287. **Anerastia pulverulella**, n. sp.

♂. Head white and brown; thorax pale brown; abdomen ochreous. Fore wing ochreous, with broad white costal fascia irrorated with fuscous, tapering to apex, its lower edge defined by brown; a prominent dark speck at lower angle of cell; the veins beyond the cell, vein 1, and inner margin white irrorated with fuscous. Hind wing white.

*Hab.* Puttalam, Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

*4288. **Anerastia brunneovittella**, *Rag. Nouv. Gen.* p. 49; *id. Mon. Phyc.* pl. xl, fig. 6; *C. & S.* no. 4633.

♀. Pale ochreous grey. Fore wing with the costa narrowly ochreous white, and with a subcostal rufous streak. Hind wing dull semihyaline white.

*Hab.* Bombay. *Exp.* 18 millim.

*4289. **Anerastia bimaculella**, *Rag. Nouv. Gen.* p. 49; *id. Mon. Phyc.* pl. xl, fig. 5; *C. & S.* no. 4632.

♂. Ochreous. Fore wing short, widening towards outer margin; the costal area tinged with rufous; the veins irrorated with a few black scales; a prominent black spot at lower angle of cell; a subbasal black speck on vein 1. Hind wing yellowish grey.

*Hab.* "S. India." *Exp.* 12 millim.

Sect. II. (*Comorta*). Palpi of male with the 2nd joint hollowed out to receive the brush-like maxillary palpi; antennæ with a sinus at base of shaft containing a ridge of scales.

A. *Palpi porrect.*

4290. **Anerastia pallidicosta**, n. sp.

♂. Head and thorax rufous; abdomen ochreous. Fore wing suffused with rufous, darkest below the broad pale costal fascia, which does not reach apex. Hind wing yellowish white.

♀ usually much redder, the costal fascia often deeply suffused with red.

*Hab.* Ichang, China; Punjab; Nágas, Ceylon; Burma. *Exp.* 22 millim. Type in B. M.

B. *Palpi upturned.*

4291. **Anerastia nigricostalis**, *Wlk. Cat.* xxvii, p. 40.
Comorta atricostella, *Rag. Nouv. Gen.* p. 48; *id. Mon. Phyc.* pl. xxxix, fig. 22.

Head and collar fuscous black; abdomen rufous. Fore wing rufous, with a fuscous black costal fascia; traces of a medial black line, a discocellular spot, and an oblique postmedial line; a marginal series of black specks. Hind wing white, with a slight fuscous tinge and marginal line.

*Hab.* W. Africa; Ceylon; Burma; Andamans; Borneo. *Exp.* 18 millim.

## Genus PATNA.

Patna, *Rag. Nouv. Gen.* p. 39 (1888).

Type, *P. eboricostella*, Rag.

*Range.* Sikhim; Bhután.

Palpi porrect, extending about twice the length of head, the 2nd joint fringed with hair above at extremity; maxillary palpi filiform; frons rounded; antennæ of female minutely ciliated. Fore wing with the costa nearly straight; the apex rectangular; veins 3, 4, 5 from angle of cell, 4, 5 being approximated for some distance; 8, 9, 10 stalked. Hind wing with vein 2 from before angle of cell; 4 absent; 3 and 5 approximated for a short distance; 6, 7 from upper angle; 7 anastomosing with 8.

4292. **Patna eboricostella**, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxviii, fig. 1; *C. & S.* no. 4620.

♀. Pinkish irrorated with black. Fore wing ochreous suffused with pink; pink streaks on the veins below costa; two black streaks in cell and an oblique black apical fascia; ill-defined black streaks between the veins beyond lower angle of cell; a

streak in interno-median interspace; a short streak above middle of vein 1, followed by a white streak on the vein; traces of a submarginal minutely-waved line, very oblique from vein 2 to inner margin. Hind wing fuscous brown; the cilia grey.

Fig. 39.—*Patna eboricostella*, ♀. 1.

*Hab.* Sikhim; Bhután. *Exp.* 30–32 millim.

## Genus POUJADIA.

Poujadia, *Rag. Nouv. Gen.* p. 42 (1888).
Baroda, *Rag. Nouv. Gen.* p. 42.

Type, *P. sepicostella*, Rag.
*Range.* India, Ceylon and Burma; Borneo.
Palpi about one and a half times length of head, in male with the 2nd joint hollowed out to receive the brush-like maxillary palpi; frons with a tuft of scales; antennæ of male with a sinus at base of shaft containing a ridge of scales; mid and hind tibiæ fringed with hair. Fore wing with vein 3 from close to angle of cell; 4, 5 stalked; 10 free. Hind wing with vein 2 usually from well before angle of cell; 4 absent; 3, 5 stalked; 6, 7 from upper angle; 8 free.

Sect. I. (*Poujadia*). Palpi oblique.

A. *Antennæ of male serrate throughout.*

4293. **Poujadia sepicostella**, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvi, fig. 25; *C. & S.* no. 4623.

Head and thorax black-brown; abdomen paler. Fore wing brown; a broad white costal fascia slightly irrorated with pink and narrowing to base and apex; the area below it very dark; traces of an oblique postmedial line. Hind wing pale fuscous.
*Hab.* N.W. Himalayas; Punjab. *Exp.* 26 millim.

4294. **Poujadia inficita**, *Wlk. Cat.* xxvii, p. 30; *Rag. Mon. Phyc.* pl. xliv, fig. 18; *C. & S.* no. 4635.

Differs from *sepicostella* in the vertex of head and abdomen being ochreous. Fore wing with a narrow costal fascia. Hind wing yellowish white with a slight fuscous tinge. Some specimens have the fore wing paler; the costal fascia somewhat diffused at middle; a dark discocellular spot and curved dark submarginal line.
*Hab.* Allahabad; Mhow; Ceylon. *Exp.* 20 millim.

4295. **Poujadia ochridorsella**, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvii, fig. 1; *C. & S.* no. 4622.

♀. Yellowish white; abdomen bright ochreous at base. Fore

wing with whitish costal fascia not reaching the apex; an ill-defined diffused brown subcostal fascia.

*Hab.* Dharmsála; Ceylon. *Exp.* 22–26 millim.

4296. **Poujadia rosella**, n. sp.

♂. Head and thorax pink; abdomen ochreous. Fore wing bright pink; a white costal fascia narrowing to base and apex and slightly irrorated with pink, the area below it suffused with chestnut. Hind wing white, with slight fuscous tinge at apex.

*Hab.* Nilgiris (*Hampson*). *Exp.* 20 millim. Type in B. M.

4297. **Poujadia spurcella**, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvii, fig. 4; *C. & S.* no. 4624.

♂. Red-brown; abdomen ochreous. Fore wing very narrow, with the medial part of costa whitish; a dark discocellular spot. Hind wing yellowish white.

*Hab.* Allahabad; Shán States; Labuan. *Exp.* 20 millim.

B. *Antennæ of male with the distal third pectinated with uniseriate branches. Hind wing with vein 2 from near angle of cell.*

4298. **Poujadia parviplumella**, n. sp.

♂. Head and thorax pale red-brown; abdomen whitish, ochreous towards base. Fore wing ochreous suffused with pale rufous and irrorated with black; a pale costal fascia defined by fuscous on its lower edge; an outwardly oblique antemedial black band on inner area; a discocellular speck; an inwardly oblique postmedial band from the costal fascia to inner margin. Hind wing white.

Fig. 40.—*Poujadia parviplumella*, ♂. $\frac{1}{1}$.

*Hab.* Meean Meer, Punjab (*Harford*). *Exp.* 22 millim. Type in B. M.

C. *Antennæ of male with long uniseriate branches.*

*4299. **Poujadia erodella**, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvii, fig. 5; *C. & S.* no. 4621.

♂. Reddish ochreous. Fore wing narrow, irrorated irregularly with black except on costa; a subcostal dark streak and traces of ante- and postmedial dark lines; a marginal series of specks. Hind wing pale yellowish.

*Hab.* "S. India." *Exp.* 20 millim.

SECT. II. (*Baroda*). Palpi porrect; antennæ of male with long uniseriate branches.

4300. **Poujadia opificella**, *Zell. Stettin. ent. Zeit.* 1867, p. 406; *Rag. Mon. Phyc.* pl. xliv, fig. 16; *C. & S.* no. 4625.

♀. Head, thorax, and fore wing uniform ochreous tinged with pink, the last very narrow and sometimes with traces of ante- and postmedial lines on inner area; abdomen ochreous. Hind wing pure white.

*Hab.* Calcutta; Burma. *Exp.* 24 millim.

4301. **Poujadia paucigraphella**, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxviii, fig. 5; *C. & S.* no. 4626.

Head, thorax, and fore wing ochreous with a slight pinkish tinge; abdomen ochreous. Fore wing with slight fuscous irroration; traces of ante- and postmedial dark lines; a dark discocellular speck. Hind wing whiter, with a yellowish tinge.

*Hab.* Sind; Bombay; Calcutta. *Exp.* 18–26 millim.

4302. **Poujadia pulverosa**, n. sp.

♀. Grey tinged with ochreous and irrorated with fuscous. Fore wing with white streaks on median nervure and vein 1; a curved antemedial series of dark marks on the veins and oblique postmedial series. Hind wing white.

*Hab.* Sind (*Swinhoe*). *Exp.* 24 millim. Type in B. M.

## Genus CRITONIA.

Critonia, *Rag. MS.*

Type, *C. subconcinnella*, Rag.

*Range.* India, Ceylon, and Burma.

Palpi porrect, extending about twice the length of head and downcurved at extremity; maxillary palpi filiform; frons with a tuft of scales; antennæ of male with short uniseriate branches, a sinus at base of shaft containing a ridge of scales. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 10 free. Hind wing with vein 2 from before angle of cell; 4 absent; 3, 5 from angle; 6, 7 from upper angle; 8 free.

4303. **Critonia sarcoglauca**, n. sp.

♀. Head and thorax pale and dark grey; abdomen grey with an ochreous tinge. Fore wing pale grey irrorated with dark grey, the base dark grey; an oblique antemedial dark grey band with waved line on its outer edge; a prominent discocellular spot; a minutely waved white postmedial line defined by dark grey on either side and slightly bent outwards between veins 6 and 2; a marginal series of dark specks. Hind wing pale fuscous; the cilia white.

The dark grey areas of fore wing are often suffused with flesh-pink.

*Hab.* Ceylon (*Green*, *Pole*). *Exp.* 22–28 millim. Type in B.M.

4304. **Critonia purpureotincta**, n. sp.

♀. Brownish flesh-colour. Fore wing with the costal and inner areas broadly suffused with pale purple and irrorated with black, the dark inner area not reaching the outer angle; dark specks on veins 2 and 3 beyond lower angle of cell; a marginal series of dark specks. Hind wing pale ochreous; the cilia grey.

*Hab.* Bhután (*Dudgeon*). *Exp.* 38 millim. Type in B. M.

4305. **Critonia roseistrigella**, n. sp.

♂. Head and thorax rose-pink; abdomen whitish with slight ochreous tinge. Fore wing rose-pink, the veins with dark streaks; a white costal fascia narrowing to base and apex, and suffused with pink on costa, the area below it slightly suffused with fuscous. Hind wing whitish; the margin and apical area tinged with fuscous.

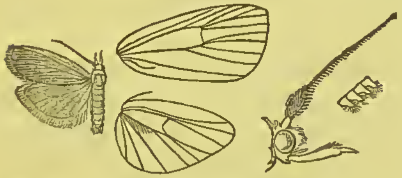

Fig. 41.—*Critonia roseistrigella*, ♂. 1/1.

*Hab.* Nilgiris (*Hampson*). *Exp.* 22 millim. Type in B. M.

4306. **Critonia subconcinnella**, *Rag. MS.*

♀. Head, thorax, and fore wing bright pink; abdomen ochreous white. Fore wing with white costal fascia narrowing to base and apex, the area below it suffused with fuscous; a whitish spot in end of cell conjoined to the costal fascia; traces of waved ante- and postmedial lines. Hind wing nearly pure white.

*Hab.* Shán States. *Exp.* 18 millim. Type in B. M.

## Genus **POLYOCHA**.

Polyocha, *Zell. Isis*, 1848, p. 876.
Emmalocera, *Rag. Nouv. Gen.* p. 38 (1888).
Lodiana, *Rag. Nouv. Gen.* p. 38.

Type, *P. sanguarinella*, Zell., from Europe.

*Range.* Abyssinia; Palæarctic and Oriental regions to Flores.

Palpi long, the 2nd joint hollowed out to receive the brush-like maxillary palpi; frons with a tuft of scales; antennæ with a large tuft of scales in a sinus at base of shaft; mid and hind tibiæ fringed with hair on outer side. Fore wing with the apex rounded; vein 3 from before angle of cell; 4, 5 from angle or stalked; 8, 9 stalked. Hind wing with vein 3 usually from angle; 4, 5 stalked; 6, 7 from upper angle.

SECT. I. Antennæ of male serrate. Fore wing with vein 10 from cell.

A. (Emmalocera). *Palpi obliquely upturned; hind wing with vein 8 free.*

4307. **Polyocha leucocincta,** *Wlk. Cat.* xxvii, p. 169.
Emmalocera lucidicostella, *Rag. Nouv. Gen.* p. 38; *id. Mon. Phyc.* pl. xxxv, fig. 20; *C. & S.* no. 4612.

♂. Head and thorax rufous and pink; abdomen ochreous. Fore wing with white costal fascia narrowing to apex; the costa pinkish; the area below it yellowish rufous, with a dark subcostal streak; the inner area pale. Hind wing whitish; the apical part of costa slightly tinged with fuscous.

♀ with the base of abdomen ochreous.

*Hab.* N.W. Himalayas; Punjab; Assam; Borneo. *Exp.* 28 millim.

4308. **Polyocha umbricostella,** *Rag. Nouv. Gen.* p. 38; *id. Mon. Phyc.* pl. xxxvi, fig. 10; *C. & S.* no. 4613.

♂. Differs from *leucocincta* in the fore wing having the area below the costal fascia pinker; the veins and interspaces of outer area streaked with fuscous.

*Hab.* N.W. Himalayas; Flores. *Exp.* 28 millim.

B. (Polyocha). *Palpi porrect; hind wing with vein 7 anastomosing with 8.*

4309. **Polyocha aurifusella,** *Wlk. Cat.* xxxv, p. 1756; *Rag. Mon. Phyc.* pl. xxxvi, fig. 18; *C. & S.* no. 4615.

Golden yellow; the head and shoulders tinged with crimson; abdomen pale. Fore wing with a crimson spot at base; a crimson and fuscous costal fascia from before base to apex; a crimson fascia on inner margin; three antemedial crimson and fuscous spots, one at end of cell, and a postmedial series bent inwards below costa; the cilia pink. Hind wing yellowish white.

*Hab.* N.W. Himalayas; Punjab; Bombay. *Exp.* 26–32 millim.

4310. **Polyocha umbrivittella,** *Rag. Nouv. Gen.* p. 38; *id. Mon. Phyc.* pl. xxxv, fig. 19; *C. & S.* no. 4614.

Grey suffused with fuscous and pink. Fore wing with an ill-defined dark fascia below the cell; a discocellular spot; the veins with dark streaks. Hind wing pale yellowish fuscous.

*Hab.* Punjab. *Exp.* 25 millim.

4311. **Polyocha cinerella,** n. sp.

♀. Brownish grey. Fore wing with the base rather browner; a broad brownish medial band with waved line on its outer edge; a discocellular spot; a waved postmedial brownish line with diffused

brown beyond it; a marginal series of specks. Hind wing rather paler.

*Hab.* Simla (*Harford*). *Exp.* 32 millim. Type in B. M.

4312. **Polyocha depressella**, *Swinh. P. Z. S.* 1885, p. 876, pl. 57. fig. 5; *C. & S.* no. 4733.
Polyocha variegatella, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxvi, fig. 16; *C. & S.* no. 4618.

♀. Head pale pink; thorax brown; abdomen ochreous. Fore wing pink, with a white costal fascia slightly suffused with pink and narrowing to base and apex; the area below the costal fascia broadly suffused with brown; the veins of outer area streaked with brown. Hind wing white with a slight yellow tinge.

*Hab.* Dharmsála; Poona; Nilgiris; Pulo Laut. *Exp.* 22–36 millim.

*4313. **Polyocha detritella**, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxvi, fig. 14; *C. & S.* no. 4617.

♂. Yellowish white. Fore wing with a subcostal brownish streak. Hind wing white.

*Hab.* Dharmsála. *Exp.* 23 millim.

*4314. **Polyocha carnatella**, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxv, fig. 25; *C. & S.* no. 4616.

♀. Yellowish pink. Fore wing with the costa narrowly edged with white. Hind wing yellowish white, with pinkish marginal line.

*Hab.* Lahore. *Exp.* 24 millim.

Sect. II. Antennæ of male with uniseriate branches; fore wing with vein 4 stalked with 5, and 10 with 8, 9; hind wing with vein 3 stalked with 4, 5.

4315. **Polyocha leucania**, *Feld. Reis. Nov.* pl. 137, fig. 13; *C. & S.* no. 4684.
Polyocha vesculella, *Rag. Nouv. Gen.* p. 39; *C. & S.* no. 4619.

Head and thorax pink; abdomen ochreous. Fore wing grey suffused with pink; the interspaces streaked with pink; the veins white defined by pink and usually also by fuscous. Hind wing pale fuscous.

Fig. 42.—*Polyocha leucania*, ♂. ½.

The Sikhim male has the branches of antennæ shorter than in the Southern form.

*Hab.* Dharmsála; Sikhim; Nilgiris; Ceylon; Burma. *Exp.* 22–40 millim.

## Subfamily PHYCITINÆ.

Proboscis well developed. Fore wing with vein 1 *a* separate from vein 1 *b*; 7 absent. Hind wing with the median nervure pectinated on upperside; vein 7 usually anastomosing with 8; frenulum simple in female as in male.

### *Key to the Genera.*

A. Hind wing with two veins arising from median nervure .......... 1. MIMISTIS, p. 65.

B. Hind wing with three veins arising from median nervure.

  *a*. Fore wing with vein 9 absent.

    $a'$. Fore wing with vein 4 absent; 3 and 5 from cell .......... 2. EPHESTIA, p. 66.

    $b'$. Fore wing with veins 4, 5 stalked .... 3. HOMŒOSOMA, p. 66.

  *b*. Fore wing with veins 8, 9 stalked.

    $a'$. Hind wing with vein 2 from or from close to angle of cell.

      $a^2$. Palpi upturned .......... 4. HETEROGRAPHIS, p. 68.

      $b^2$. Palpi oblique or porrect, the 3rd joint downcurved .......... 5. ANCYLOSIS, p. 71.

    $b'$. Hind wing with vein 2 from well before angle of cell .......... 6. EUZOPHERA, p. 72.

C. Hind wing with four veins arising from median nervure.

  *a*. Palpi with the 2nd and 3rd joints upturned.

    $a'$. Hind wing with vein 5 stalked with 4.

      $a^2$. Hind wing with vein 3 approximated to or stalked with 4, 5.

        $a^3$. Fore wing with veins 3, 4, 5 stalked .......... 7. ENDOLASIA, p. 74.

        $b^3$. Fore wing with veins 4, 5 stalked, 3 from cell.

          $a^4$. Fore wing with vein 10 stalked with 8, 9 .......... 8. SANDRABATIS, p. 75.

          $b^4$. Fore wing with vein 10 from the cell .......... 9. MICROTHRIX, p. 76.

        $c^3$. Fore wing with veins 4, 5 from a point and approximated for some distance .......... 10. NEPHOPTERYX, p. 76.

        $d^3$. Fore wing with veins 4, 5 well separated at origin .......... 11. EPICROCIS, p. 85.

      $b^2$. Hind wing with vein 3 diverging from angle of cell.

        $a^3$. Fore wing with veins 4, 5 stalked.

          $a^4$. Hind wing with the cell about one third length of wing .... 12. HYPARGYRIA, p. 87.

          $b^4$. Hind wing with the cell about half the length of wing ...... 13. MYELOIS, p. 88.

        $b^3$. Fore wing with veins 4, 5 approximated for a short distance.

          $a^4$. Hind wing with the cell about half the length of wing ...... 14. HYPSIPYLA, p. 89.

$b^4$. Hind wing with the cell about one-third length of wing .... 15. PHYCITA, p. 90.
$c^3$. Fore wing with veins 4, 5 well separated towards origin ...... 16. RHODOPHÆA, p. 98.
$b'$. Hind wing with vein 5 from angle of cell.
$a^2$. Hind wing with the cell about one-fifth length of wing ............ 17. SPATULIPALPIA, [p. 101.
$b^2$. Hind wing with the cell about half the length of wing.
$a^3$. Fore wing with a ridge of raised scales before the antemedial line. 18. CEROPREPES, p. 103.
$b^3$. Fore wing with no ridge of scales before the antemedial line.
$a^4$. Fore wing with veins 4, 5 approximated for a short distance or stalked; hind wing with veins 4, 5 well separated. 19. CRYPTOBLABES, [p. 104.
$b^4$. Fore wing with veins 4, 5 well separated; hind wing with veins 4, 5 approximated for a short distance .............. 20. THIALLELA, p. 106.
$b$. Palpi with the 3rd joint porrect ........ 21. TEPHRIS, p. 106.
$c$. Palpi porrect ...................... 22. ETIELLA, p. 108.

## Genus **MIMISTIS**, nov.

Type, *M. actiosoides*, Hmpsn.
*Range.* Ceylon.

Palpi upturned, long, and reaching well above vertex of head: maxillary palpi filiform; antennæ ciliated. Fore wing with vein 2 absent; 3 from angle of cell; 4, 5 on a long stalk; 8, 9, 10 stalked. Hind wing with the cell quite open; veins 3 and 4 stalked, 2 and 5 absent; 6, 7 long, 7 anastomosing with 8.

### 4316. **Mimistis actiosoides**, n. sp.

Head and thorax fuscous black; palpi banded with grey; legs banded grey and black; abdomen fuscous and grey. Fore wing black-brown, with a pink irrorated white triangular patch on costa before middle extending down to vein 1; a similar large postmedial patch embracing the two prominent discocellular black spots and not extending below median nervure; a minutely dentate submarginal dark line defined by grey; a marginal series of black specks, and grey patch below apex. Hind wing pale tinged with fuscous.

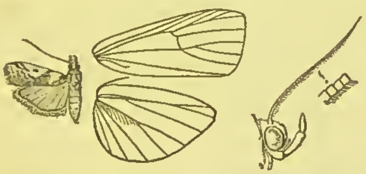

Fig. 43.—*Mimistis actiosoides*, ♀. $\frac{1}{1}$.

*Hab.* Putlam, Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

## Genus EPHESTIA.

Ephestia, *Guen. Eur. Microlep. Ind. Meth.* p. 81 (1845).
Cadra, *Wlk. Cat.* xxx, p. 961 (1864).

Type, *E. elutella*, Hübn., from Europe.
*Range.* Universally distributed.

Palpi upturned and reaching just above vertex of head, the 3rd joint well developed; maxillary palpi filiform; antennæ of male somewhat thickened. Fore wing long and narrow; vein 4 absent; 3 and 5 from angle; 9 absent; 10 free; male with a fold at base of costa on underside containing a fringe of long hair. Hind wing with vein 2 from well before angle of cell; 3, 4 from angle; the discocellulars oblique; 6, 7 stalked, 7 anastomosing strongly with 8.

SECT. I. Antennæ of male with the shaft not excised towards base.

4317. **Ephestia cautella**, *Wlk. Cat.* xxvii, p. 73; *C. & S.* no. 4586.
Cadra defectella, *Wlk. Cat.* xxx, p. 962; *C. & S.* no. 4646.

Fig. 44.—*Ephestia cautella*, ♂. $\frac{3}{2}$.

Fuscous grey-brown. Fore wing with indistinct erect antemedial brown band; traces of a minutely dentate submarginal line slightly bent outwards at vein 5. Hind wing semihyaline whitish; the veins and margins tinged with fuscous.

*Hab.* Aden; Bhután; Ceylon; Sumbawa. *Exp.*, ♂ 14–16, ♀ 18 millim.

SECT. II. Antennæ of male with the shaft excised towards base.

4318. **Ephestia rubrimediella**, n. sp.

Head and thorax brown irrorated with grey; abdomen fuscous. Fore wing brown thickly irrorated with grey; a large medial red-brown patch or diffused band; two discocellular specks; an ill-defined irregularly dentate postmedial brown line with traces of another line beyond it; an indistinct marginal series of brown specks. Hind wing pale semihyaline brown, with brown marginal line; the cilia grey.

*Hab.* Khási and Nága Hills (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

## Genus HOMŒOSOMA.

Homœosoma, *Curt. Ent. Mag.* i, p. 190 (1833).

Type, *H. sinuella*, Fabr., from Europe.
*Range.* Universally distributed.

Palpi upturned and reaching vertex of head, the 3rd joint well-developed and acuminate; maxillary palpi filiform; antennæ of

male somewhat thickened. Fore wing long and narrow; vein 3 from angle of cell; 4, 5 stalked; 9 absent; 10 free. Hind wing with the cell short; vein 2 from well before angle; 4 absent; 3 and 5 from angle; the discocellulars erect; 6, 7 shortly stalked, 7 anastomosing strongly with 8.

4319. **Homœosoma ephestidiella**, n. sp.

Grey. Fore wing with indistinct dark antemedial line strongly angled on median nervure; a dark discocellular mark; a pale submarginal line slightly bent outwards at vein 5; two dark specks near middle of outer margin. Hind wing semihyaline white; the veins and margins slightly tinged with brown.

*Hab.* Nilgiris (*Hampson*); Sumbawa (*Doherty*). *Exp.* 18 millim. Type in B. M.

4320. **Homœosoma albovittella**, *Rag. Nouv. Gen.* p. 35; *id. Mon. Phyc.* (*Rom. Mém.* viii) pl. xxxiv, fig. 2; *C. & S.* no. 4606.

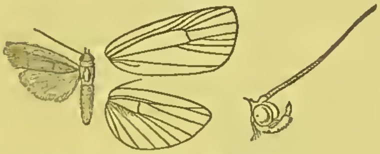

Fig. 45.
*Homœosoma albovittella*, ♂. $\frac{1}{1}$.

♂. Head and thorax rufous; antennæ with the shaft whitish. Fore wing rufous, with a broad white costal fascia, slightly irrorated with rufous and widening to apex. Hind wing pale brownish ochreous.

*Hab.* Allahabad. *Exp.* 20 millim.

4321. **Homœosoma griseipennella**, n. sp.

♀. Head and thorax grey, the vertex of head white; abdomen whitish. Fore wing grey and white; a dark spot at base of costa; a fuscous antemedial band inwardly defined by white and angled on median nervure; traces of two dark discocellular specks; an oblique sinuous fuscous postmedial band outwardly defined by white. Hind wing whitish, with slight marginal fuscous line.

*Hab.* Murree (*Harford*). *Exp.* 32 millim. Type in B. M.

4322. **Homœosoma punctistrigella**, *Rag. Nouv. Gen.* p. 33; *id. Mon. Phyc.* pl. xxxiii, fig. 3; *C. & S.* no. 4610.

♂. Pale yellow. Fore wing narrow; the apex acute; the antemedial line represented by three obliquely placed dark specks on the veins; two prominent discocellular specks; an oblique dark postmedial line; the veins of outer area irrorated with fuscous.

*Hab.* Punjab. *Exp.* 20 millim.

4323. **Homœosoma bipunctella**, n. sp.

♂. Head and thorax grey-brown; the palpi dark; abdomen ochreous. Fore wing pale reddish brown; the costal half suffused with white, narrowing to apex; traces of a curved ante-

medial line; two black discocellular specks; two indistinct oblique submarginal lines; a marginal series of black specks. Hind wing white; the apical area tinged with brown; a marginal brown line.

*Hab.* Ceylon (*Green*). *Exp.* 18 millim. Type in B. M.

4324. **Homœosoma fuscifusella**, n. sp.

♀. Brown. Fore wing thickly irrorated with dark brown; a darker streak below median nervure; two brown discocellular specks and a marginal series. Hind wing pale brownish; the cilia white.

*Hab.* Ceylon (*Green*). *Exp.* 24 millim. Type in B. M.

4325. **Homœosoma goliathella**, *Rag. Nouv. Gen.* p. 35; *id. Mon. Phyc.* pl. xxxii, fig. 22; *C. & S.* no. 4609.

♀. Olive-brown irrorated with dark brown. Fore wing with the costal area pale; some dark suffusion below base of median nervure; an ill-defined antemedial dark line strongly angled below the cell; two black discocellular spots, the lower large; an indistinct postmedial dark line angled beyond the cell, then oblique; a marginal series of black specks. Hind wing paler, with marginal brown line.

*Hab.* Calcutta. *Exp.* 40 millim.

## Genus HETEROGRAPHIS.

Heterographis, *Rag. Ent. Mo. Mag.* xxii, p. 31 (1885).
Anonæpestis, *Rag. Indian Museum Notes*, iii, p. 106 (1894).

Type, *H. oblitella*, Zell., from Europe.

*Range.* Nearctic and Palæarctic regions; India; Ceylon.

Palpi upturned, the 3rd joint well-developed and acuminate. Fore wing long and narrow; veins 2, 3 from close to angle of cell; 8, 9 stalked. Hind wing with vein 2 from angle of cell; 3 and 5 stalked; 6, 7 from upper angle, 7 anastomosing with 8.

Sect. I. Maxillary palpi triangularly scaled and flattened against the frons; antennæ of male somewhat thickened.

A. *Fore wing with veins 4, 5 from cell; 10 present.*

4326. **Heterographis singhalella**, *Rag. Ann. Soc. Ent. Fr.* 1888, p. 283; *id. Mon. Phyc.* pl. xxx, fig. 24; *C. & S.* no. 4603.

♂. Head and thorax ochreous tinged with rufous; abdomen pale. Fore wing ochreous, tinged with rufous and irrorated with black; the basal area suffused with red; a subbasal black spot below costa; an antemedial slightly oblique pale line with black specks on its edges, and slightly dentate on vein 1; a white discocellular spot and black speck at lower angle of cell; a pale submarginal line slightly bent outwards at vein 5; a black mark at apex and marginal series of black specks. Hind wing semihyaline white, the marginal area brownish.

*Hab.* Ceylon. *Exp.* 14–16 millim.

4327. **Heterographis pygmæella**, n. sp.

Head white; thorax white and rufous; abdomen grey. Fore wing pale brown, with a broad white costal fascia, narrowing at middle of cell, where there is a black spot; a large pink patch on inner area before middle, followed by a V-shaped white mark on vein 1; a sinuous white submarginal line with diffused fuscous inside it. Hind wing semihyaline white, the apical area, a marginal line, and a line through the cilia brownish.

*Hab.* Ceylon (*Pole*). *Exp.* 12 millim. Type in B. M.

4328. **Heterographis mysorella**, *Rag. Nouv. Gen.* p. 29; *id. Mon. Phyc.* pl. xxviii, fig. 22; *C. & S.* no. 4602.

Brownish ochreous. Fore wing with a white costal fascia expanding at middle and not reaching the apex; the antemedial line represented by a spot on vein 1; the postmedial line fine and very indistinct; two discocellular dark spots and a marginal series. Hind wing yellowish grey.

*Hab.* S. India. *Exp.* 15 millim.

4329. **Heterographis verrucicola**, n. sp.

Dark red-brown suffused with fuscous. Fore wing with white costal fascia from near base to near apex; a very indistinct irregular antemedial dark line oblique towards costa; a black speck at upper angle of cell; an indistinct minutely dentate submarginal dark line; a marginal series of black specks. Hind wing hyaline white; the veins, a marginal line, and a line through the cilia brown.

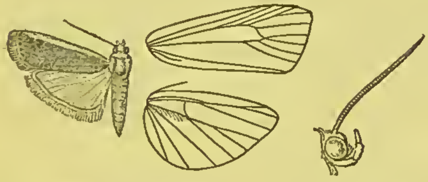

Fig. 46.—*Heterographis verrucicola*, ♂. $\frac{3}{2}$.

*Larva.* Uniform dark purplish brown; a few fine colourless bristles scattered over the body; a well-marked lateral fold; each segment with one or more deep transverse furrows. Inhabits wart-like excrescences in the stem and branches of *Trema orientalis*, forming galleries in the diseased wood, and pupating in slight whitish cocoons. It is uncertain if the larvæ are the primary cause of the excrescences, but the galleries, after being deserted by the moths, usually contain colonies of the mealy bug *Dactylopius adonidum*, and these in their turn attract a species of ant which builds a covering over them, the foundation of large nests which gradually increase in size and obstruct the growth of the tree (*Green*).

*Hab.* Nága Hills (*Doherty*); Pundaloya, Ceylon (*Green*). *Exp.* 14–18 millim. Type in B. M.

4330. **Heterographis rubripictella**, n. sp.

♀. Head white; thorax brownish ochreous; abdomen white, with an ochreous tinge on dorsum. Fore wing brownish ochreous,

with a white costal fascia widening on disk and not reaching the apex; diffused pink fasciæ along median nervure and vein 1; an outwardly oblique antemedial white line, a discocellular spot, and inwardly oblique postmedial line; the margin pink; cilia white. Hind wing pale tinged with fuscous.

*Hab.* Mcean Mcer, Punjab (*Harford*). *Exp.* 14 millim. Type in B. M.

4331. **Heterographis suboblitella**, *Rag. Nouv. Gen.* p. 29; *id. Mon. Phyc.* pl. xxx, fig. 11; *C. & S.* no. 4604.

♂. Grey. Fore wing suffused with ochreous below cell and on outer area; ante- and postmedial whitish lines bordered by black at middle, the former interrupted and preceded by a broad ochreous band becoming blackish on inner area, the latter very sinuous and excurved at middle; a dark spot at lower angle of cell. Hind wing semihyaline yellowish grey.

*Hab.* S. India. *Exp.* 17 millim.

B. *Fore wing with veins* 4, 5 *stalked.*

a. *Fore wing with vein* 10 *present.*

4332. **Heterographis micralis**, n. sp.

♂. Head and collar black; thorax, abdomen, and fore wing brownish grey irrorated with black, the last with the costa black; two black discocellular specks, and one below angle of cell on vein 1; the outer area black, narrowing to apex and crossed by a pale submarginal line. Hind wing pale.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 10 millim. Type in B. M.

b. (Anonæpestis). *Fore wing with vein* 10 *absent.*

4333. **Heterographis resticula**, n. sp.

Fuscous black; abdomen paler fuscous. Fore wing with the basal area blacker, bounded by an oblique ochreous antemedial line, slightly angled on median nervure; a sinuous ochreous submarginal line bent outwards at vein 5; a slight pale marginal line. Hind wing pale fuscous.

*Hab.* Calcutta; Ceylon. *Exp.* 12 millim. Type in B. M.

4334. **Heterographis bengalella**, *Rag. Indian Museum Notes*, iii, p. 107; *Mon. Phyc.* (*Rom. Mém.* viii) pl. xlii, fig. 20.

Head and collar olive-green; thorax purplish; abdomen ochreous, the basal segment whitish, the 2nd fuscous. Fore wing with the costal half olive-green and white, the inner half vinous red; an indistinct sinuous white medial line and dentate white submarginal line; a marginal series of dark specks. Hind wing semihyaline; the veins, a marginal line, and a line through the cilia brown.

The *larva* bores in the fruit of the Custard Apple.

*Hab.* Bhután; Calcutta. *Exp.* 24 millim.

SECT. II. Palpi of male with the 2nd joint hollowed out to contain the brush-like maxillary palpi; frons with a rounded prominence; antennæ ciliated.

4335. **Heterographis unipunctella**, *Hmpsn. P. Z. S.* 1896, p. 270.

Head and thorax grey and fuscous; abdomen with a rufous tinge. Fore wing grey, thickly irrorated with fuscous; an indistinct dark antemedial line, angled inwards in cell, then becoming white with a fulvous patch on its inner side, becoming fuscous at inner margin; a black speck at lower angle of cell; a sinuous dark submarginal line outwardly defined by white, beyond which is a fuscous patch at apex and a fulvous patch from vein 6 to inner margin. Hind wing semihyaline white; the veins, marginal area, and a line through the cilia brown.

*Hab.* Aden; Meean Meer, Punjab. *Exp.* 18 millim.

## Genus ANCYLOSIS.

Ancylosis, *Zell. Isis*, 1839, p. 178.

Type, *A. cinnamomella*, Dup., from Europe.

*Range.* Palæarctic region; S. Africa; India; Ceylon.

Palpi obliquely upturned and reaching just above vertex of head, the 3rd joint porrect; maxillary palpi filiform and minute; antennæ of male somewhat thickened. Fore wing long and narrow; veins 2, 3 from near angle of cell; 4, 5 from angle; 8, 9 stalked; 10 free. Hind wing with vein 2 from angle of cell; 3 and 5 stalked; 6, 7 stalked, 7 anastomosing with 8.

4336. **Ancylosis ilella**, *Swinh. P. Z. S.* 1884, p. 529, pl. 48, fig. 6; *C. & S.* no. 4587.

♀. Ochreous, thickly irrorated with fuscous brown. Fore wing with indistinct oblique antemedial brown line; a dark spot at lower angle of cell; an indistinct oblique postmedial line bent outwards at vein 5. Hind wing rather paler; cilia of both wings grey.

*Hab.* Karáchi and Hyderabad, Sind. *Exp.* 16–20 millim.

4337. **Ancylosis lapsalis**, *Wlk. Cat.* xix, p. 829; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 21; *C. & S.* no. 4537.

♀. Ochreous brown. Fore wing with diffused fuscous marginal band. Hind wing paler.

*Hab.* Ceylon. *Exp.* 18 millim.

4338. **Ancylosis carnea**, *Warr. P. Z. S.* 1888, p. 336; *Rag. Mon. Phyc.* pl. xliv, fig. 9; *C. & S.* no. 4560.

♀. Head and collar grey; thorax flesh-coloured; abdomen ochreous. Fore wing flesh-coloured; a white costal fascia irrorated with pink and a few black scales, and terminating before apex; traces of a white antemedial line, with black speck on it, at vein 1; a black speck at lower angle of cell; a sinuous white submarginal

line; a white marginal band irrorated with black. Hind wing white, with pale brown marginal line and line through the cilia.

*Hab.* Campbellpur, Punjab. *Exp.* 18 millim.

4339. **Ancylosis ? lucida,** *Warr. P. Z. S.* 1888, p. 336; *C. & S.* no. 4572.

♀. (Head wanting;) thorax and fore wing ochreous, the last with white costal fascia; an oblique pink band from the base of subcostal nervure to inner margin; an oblique medial band not reaching the costa; a nearly straight and erect postmedial band and a marginal band. Abdomen and hind wing whitish.

*Hab.* Campbellpur, Punjab. *Exp.* 18 millim.

4340. **Ancylosis trilineatella,** n. sp.

Red-brown suffused with grey. Fore wing irrorated with black; a broad diffused grey costal fascia thickly irrorated with black; two oblique fuscous antemedial lines defined by white on inner side; a dark speck at lower angle of cell; an incurved fuscous submarginal line defined by white on outer side; the margin suffused with grey. Hind wing pale semihyaline brown; the cilia grey, with a brown line through them.

*Hab.* Meean Meer, Punjab (*Harford*). *Exp.* 16 millim. Type in B. M.

4341. **Ancylosis niveicostella,** n. sp.

Dull red-brown; abdomen pale. Fore wing dull red-brown; a broad pure white costal fascia irrorated with a few pink scales; below the costal fascia is a leaden-coloured fascia along median nervure sending three spurs down to vein 1; a bright red spot at outer angle and marginal series of dark specks. Hind wing yellowish white.

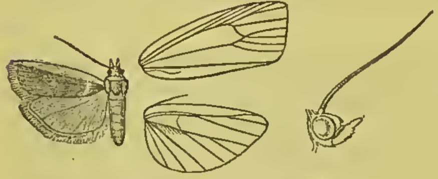

Fig. 47.—*Ancylosis niveicostella*, ♂. $\frac{3}{2}$.

*Hab.* Bombay; Ceylon (*Green*). *Exp.* 18 millim. Type in B. M.

## Genus **EUZOPHERA.**

Stenoptycha, *Von Hein. Schmett. Deutsch.* i, 2, p. 190 (1863), præocc.
Melia, *Von Hein. t. c.* p. 209, præocc.
Euzophera, *Zell. Trans. Ent. Soc.* (3) v, p. 456 (1867).

Type, *E. biviella*, Zell., from Europe.

*Range.* Neotropical, Palæarctic, and Ethiopian regions; India; Ceylon.

Palpi upturned and reaching vertex of head, the 2nd joint fringed with scales at extremity; the 3rd joint well developed and acuminate; antennæ of male somewhat thickened. Fore wing long and

narrow; the apex rounded; vein 3 from before angle of cell; 4, 5 usually stalked; 8, 9 stalked; 10 usually free. Hind wing with vein 2 from before angle of cell, which is long; 4 absent; 6, 7 from upper angle, 7 anastomosing strongly with 8.

SECT. I. Maxillary palpi triangularly scaled and flattened against the frons; mid and hind tibiæ fringed with hair on outer side; hind wing with veins 3, 5 stalked.

4342. **Euzophera perticella**, *Rag. Nouv. Gen.* p. 32; *id. Mon. Phyc.* pl. xxxii, fig. 1; *C. & S.* no. 4605.

Head and thorax pale rufous and grey; abdomen pale. Fore wing pale rufous; the costal area to beyond middle and the apical area suffused with grey; a black line from middle of costa, very strongly dentate, being retracted along subcostal and median nervures almost to base of wing, bent outwards in and below cell to beyond middle of wing, and terminating on inner margin before the middle; a slight pale discocellular mark; a postmedial minutely dentate line very slightly bent outwards at vein 5, defined on outer side by ochreous, beyond this fuscous suffusion and streaks on the veins and in interspaces; a marginal series of black specks. Hind wing whitish; the marginal area tinged with fuscous in female.

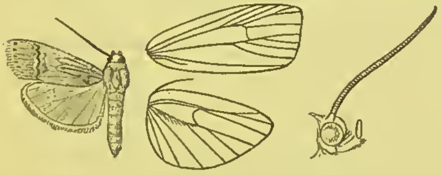

Fig. 48.—*Euzophera perticella*, ♂. 1/1.

*Hab.* Calcutta; Nilgiris; Ceylon. *Exp.*, ♂ 26, ♀ 32 millim.

4343. **Euzophera punicæella**, *Moore, Indian Museum Notes*, ii, p. 28; *Rag. Mon. Phyc.* pl. xli, fig. 25.

♀. Fuscous suffused with black. Fore wing with diffused fuscous-black antemedial band, with whitish band on its inner edge from cell to inner margin; a postmedial line excurved from costa to vein 2. Hind wing uniform fuscous.

The larva bores in the fruit of the Pomegranate.

*Hab.* Baluchistan. *Exp.* 20 millim.

SECT. II. Maxillary palpi filiform; tibiæ smoothly scaled; hind wing with veins 3 and 5 from angle of cell.

4344. **Euzophera plumbeifasciella**, n. sp.

♀. Head and thorax brown; abdomen pale brown. Fore wing deep brown, with antemedial, medial, postmedial, submarginal, and marginal bands of diffused leaden-coloured scales, the antemedial and postmedial dilated towards costa, the latter and the marginal bands broadest. Hind wing pale brown.

*Hab.* Calcutta (*Atkinson*). *Exp.* 16 millim. Type in B. M.

SECT. III. Fore wing with veins 4, 5 from cell; 10 stalked with 8, 9; male with a costal fold enclosing a tuft of long hair; hind wing with veins 4, 5 shortly stalked.

4345. **Euzophera niveicostella**, n. sp.

Dark red-brown. Fore wing with a white costal fascia slightly irrorated with brown from near base to near apex, widest at middle; an antemedial somewhat irregular line, oblique and usually reduced to two spots towards costa; two discocellular dark specks; a minutely dentate submarginal pale line; a marginal series of dark specks. Hind wing fuscous brown, rarely whitish; the cilia grey, with a brown line through them.

*Hab.* Ceylon (*Green*). *Exp.*, ♂ 18, ♀ 20 millim. Type in B. M.

SECT. IV. Fore wing with veins 2, 3 stalked, 4, 5 from cell; 10 absent. Hind wing with vein 7 becoming coincident with 8; 4, 5 stalked.

4346. **Euzophera micans**, n. sp.

♀. Head and thorax ochreous brown; palpi dark at base; abdomen suffused with fuscous. Fore wing reddish brown, irrorated with bright scales; an indistinct nearly straight pale submarginal line. Hind wing pale silky brown; the veins, a marginal line, and a line through the cilia darker.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 14 millim. Type in B. M.

Genus **ENDOLASIA**, nov.

Type, *E. melanoleuca*, Hmpsn.

*Range.* Sind.

Palpi upturned and reaching above vertex of head, the 2nd joint in male greatly dilated and hollowed out to receive the brush-like maxillary palpi; frons smooth; antennæ of male with a sinus at base of shaft with a ridge of scales in it. Fore wing with the costa arched at middle; vein 2 from near angle of cell; 3, 4, 5 stalked; 10 free. Hind wing with the cell nearly half the length of wing; vein 2 from close to angle of cell; 3, 4, 5 stalked; 6, 7 stalked, 7 approximated to 8.

4347. **Endolasia melanoleuca**, n. sp.

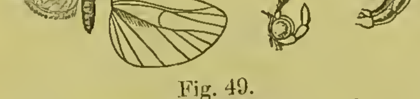

Fig. 49.
*Endolasia melanoleuca*, ♂. 1/1.

♀. Maxillary palpi ochreous; head and thorax black; abdomen fuscous. Fore wing black, with a broad white nearly erect antemedial band, its outer edge tinged with brown; a small ochreous triangular postmedial spot on costa. Hind wing pure white.

*Hab.* Mitras Canal, Sind. *Exp.* 18 millim. Type in B. M.

## Genus SANDRABATIS.

Sandrabatis, *Rag. Mon. Phyc.* (*Rom. Mém.* vii) p. 203 (1894).

Type, *S. crassiella*, Rag.

*Range.* N.E. and S. India; Ceylon.

Palpi upturned, in female with the 2nd joint reaching above vertex of head, the 3rd well developed and acuminate, the maxillary palpi filiform; in male the 2nd joint of palpi is very long, hollowed out, and containing the maxillary palpi, which end in a brush of very long hair, the 3rd joint short; frons with a tuft of long hair; antennæ of male with a thick ridge of scales on base of shaft; thorax with ridges of large scales along the coxæ; mid tibiæ dilated with a fold containing a tuft of long hair; hind tibiæ fringed on outer side with very long coarse hair. Fore wing of male with a large patch of thick raised scales on basal inner area and tufts of raised scales on the antemedial line below costa; the costa produced to a rounded lobe at middle, of which the female also has slight traces; vein 3 from angle of cell; 4, 5 stalked; 8, 9, 10 stalked and curved. Hind wing of male with the costa arched; the cell very short; vein 2 from angle; 3, 4, 5 stalked; 6, 7 stalked, 7 anastomosing with 8.

4348. **Sandrabatis crassiella**, *Rag. Mon. Phyc.* p. 204, pl. xviii, fig. 7.

♂. Head, thorax, and abdomen reddish brown and fuscous; antennæ with the ridge of scales, the frontal tuft, and a tuft behind the antennæ black. Fore wing with the basal patch of thick scales dark grey; the tufts on antemedial line black; the rest of wing reddish brown, variegated with red and fuscous; a minutely dentate ochreous antemedial line bent outwards from vein 3 to inner margin, with a series of black specks on its inner edge and short black streaks on the veins beyond it; a marginal series of black specks. Hind wing fuscous brown, the cilia ochreous.

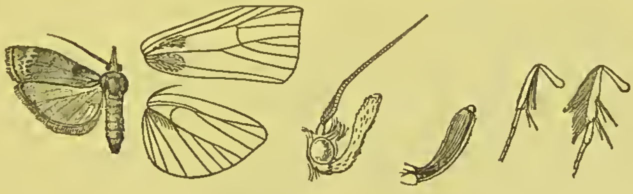

Fig. 50.—*Sandrabatis crassiella*, ♂. ½.

♀ with the fore wing variegated with pale and dark red-brown shades or nearly uniform; without the dark basal patch; a black streak in base of cell; the antemedial line represented by an oblique line from costa and a speck on median nervure.

*Hab.* Bhután; Nágas; Manipur; Nilgiris; Ceylon. *Exp.* 24 millim.

## Genus MICROTHRIX.

Microthrix, *Rag. Nouv. Gen.* p. 25 (1888).

Type, *M. inconspicuella*, Rag.
*Range.* S. Africa; Punjab; Burma.
Palpi upturned, reaching well above vertex of head, the 2nd joint in male hollowed out and enclosing the maxillary palpi, which end in a tuft of hair; frons smooth; antennæ of male thickened and flattened, with a sinus at base with a ridge of scales in it; tibiæ rather thickly scaled. Fore wing long and narrow; veins 2 and 3 from close to angle of cell; 4, 5 stalked; 10, 11 free. Hind wing with vein 2 from near angle of cell; 3, 4, 5 stalked; 6, 7 from upper angle, 7 anastomosing with 8.

4349. **Microthrix inconspicuella**, *Rag. Nouv. Gen.* p. 17; *id. Mon. Phyc.* p. 324, pl. xiii, fig. 17; *C. & S.* no. 4580.
Microthrix fuscidorsella, *Rag. Nouv. Gen.* p. 25.

♂. Maxillary palpi white; antennæ black; head, thorax, and abdomen pale brown tinged with fuscous. Fore wing pale brown, with an olive tinge and irrorated with fuscous; a brown and fuscous antemedial patch on inner area surrounded with grey; an indistinct medial line angled outwards below costa and inwards on vein 1; two dark discocellular specks; traces of an oblique submarginal line with grey outer edge. Hind wing pale fuscous; the cilia pale, with a dark line through them.

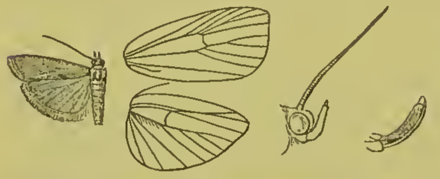

Fig. 51.—*Microthrix inconspicuella*, ♂. $\frac{1}{1}$.

*Hab.* Natal; Punjab; Burma. *Exp.* 18 millim.

## Genus NEPHOPTERYX.

Nephopteryx, *Hübn. Verz.* p. 370 (1818?).
Salebria, *Zell. Isis*, 1846, p. 779.
Ceutholopha, *Zell. Stett. ent. Zeit.* 1867, p. 375.
Thylacoptila, *Meyr. Ent. Mo. Mag.* 1885, p. 105.
Bussa, *Rag. Nouv. Gen.* p. 24 (1888).
Oligochroa, *Rag. Nouv. Gen.* p. 20.
Palibothra, *Rag. Bull. Soc. Ent. Fr.* 1889, p. ccxviii.
Melathrix, *Rag. Mon. Phyc.* p. 435 (1894).
Pristarthria, *Rag. Mon. Phyc.* p. 326 (1894).

Type, *N. rhenella*, Zinck., from Europe.
*Range.* Universally distributed.
Palpi upturned, the 2nd joint reaching vertex of head, the 3rd short and acuminate; frons roughly scaled; antennæ of male typically with a sinus at base of shaft containing a ridge of scales; tibiæ thickly scaled, the outer spurs about two-thirds length of inner. Fore wing with the apex somewhat rounded; vein 3 from before angle of cell; 4, 5 approximated for some distance; 10 free.

Hind wing with the cell short; vein 2 from near the angle; 3 approximated to or stalked with 4, 5; 6, 7 stalked, 7 anastomosing with 8.

Sect. I. (*Nephopteryx*). Palpi of male with the 2nd joint not excised to receive the maxillary palpi; antennæ not thickened.

A. *Antennæ of male with no sinus at base of shaft.*

a. *Hind wing of male with no streak of large black scales on vein 1 b.*

4350. **Nephopteryx rhyparella**, *Rag. Nouv. Gen.* p. 15; *id. Mon. Phyc.* p. 268, pl. x, fig. 15; *C. & S.* no. 4582.
Acrobasis nigrescens, *Warr. P. Z. S.* 1888, p. 336; *C. & S.* no. 4564.

♂. Head, thorax, and abdomen fuscous, irrorated with grey. Fore wing fuscous irrorated with grey; an oblique white antemedial band diffused outwards below costa and with a white spot beyond it above inner margin; two discocellular black specks; a submarginal dark-outlined grey line bent outwards at vein 5. Hind wing fuscous.

♀. Often much greyer; fore wing with the costal part of antemedial band more diffused and with a dark patch beyond it; the discocellular spot and a series of marginal specks prominent.

*Hab.* Campbellpur; Simla; Murree. *Exp.* 22 millim.

4351. **Nephopteryx basisignella**, n. sp.

♀. Grey. Fore wing with semicircular brown spot on base of inner margin; an oblique white antemedial band with sinuous lines just inside its edges; two almost conjoined discocellular black specks; a fuscous-edged whitish submarginal line bent outwards at vein 5 and crossed by an oblique diffused fuscous shade from apex; a series of marginal black specks. Hind wing fuscous, the cilia white.

*Hab.* Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

4352. **Nephopteryx eugraphella**, *Rag. Nouv. Gen.* p. 15; *id. Mon. Phyc.* p. 281, pl. ix, fig. 14; *C. & S.* no. 4578.

♀. Grey. Fore wing slightly suffused with brown and irrorated with black; an oblique antemedial band edged by black lines, the inner with a ridge of raised scales, the band traversed by a fuscous line; two black discocellular specks; the postmedial line inwardly oblique from costa to vein 5, then bent outwards to vein 2, a brown line beyond it; a marginal black line and some specks on the cilia. Hind wing semihyaline white; the apical area, a marginal line, and line through the cilia fuscous.

The *larva* feeds on cured Tobacco and the "Bukool" tree, *Mimusops elengi*.

*Hab.* Punjab; Calcutta. *Exp.* 22 millim.

4353. **Nephopteryx canescentella**, n. sp.

♀. Head, thorax, and abdomen grey irrorated with fuscous. Fore wing grey, uniformly irrorated with brown and fuscous; traces of a dark antemedial line and patch on inner area; an indistinct grey submarginal line angled inwards below costa; the cilia fuscous, with a grey line through them. Hind wing semi-hyaline white; the margin and a line through the cilia fuscous.

*Hab.* Thayetmyo, Burma (*Watson*). *Exp.* 16 millim. Type in B. M.

4354. **Nephopteryx ochribasalis**, n. sp.

♀. Head, thorax, and abdomen pale ochreous; abdomen tinged with brown; paired dorsal purplish spots on the first two segments. Fore wing with the basal area pale ochreous; a slightly curved antemedial black line, with an indistinct purplish line inside it and a fuscous patch on inner margin; the outer area fuscous brown irrorated with grey, pale ochreous, and a few purple scales; a submarginal black line defined by grey and excurved between veins 5 and 2; a marginal series of black specks. Hind wing pale brown; the cilia grey, with a brown line through them.

*Hab.* Bhután (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

4355. **Nephopteryx semiirrorella**, n. sp.

♀. Dark red-brown; head ochreous; thorax suffused with grey: abdomen fuscous. Fore wing with the costal half thickly suffused with grey; medial white specks on median nervure and vein 1; an indistinct submarginal dark line excurved and minutely dentate between veins 6 and 2; a marginal series of black specks. Hind wing pale brown, darker at outer margin; a dark line through the cilia.

*Hab.* Bhután (*Dudgeon*); Nágas (*Doherty*). *Exp.* 24 millim. Type in B. M.

4356. **Nephopteryx nocturnella**, n. sp.

♀. Head pale brown; collar with a purplish tinge; thorax dark fuscous; abdomen fuscous brown. Fore wing brown, almost entirely suffused with purplish fuscous, leaving a streak below median nervure and the outer part of inner area browner; a medial black line angled inwards on vein 1; a submarginal black line excurved between veins 5 and 2; a marginal black line. Hind wing brownish fuscous, with a dark line through the cilia. Fore wing with veins 4, 5 closely approximated for a long distance: hind wing with vein 3 very closely approximated to 4, 5 for half its length.

*Hab.* Bhután (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

4357. **Nephopteryx divisella**, *Dup. Lep. Fr. Suppl.* iv, p. 126, pl. 60, fig. ix; *Rag. Mon. Phyc.* p. 295.
Pempelia euphorbiella, *Zell. Isis*, 1846, p. 757.
Nephopteryx albiricella, *Herr.-Schäffer, Eur. Schmett.* iv, p. 73.

Head red; palpi banded with white; thorax and abdomen pale brown, the former tinged with purple. Fore wing pale brown; the costal half pure white, tapering to apex, irrorated with a few purplish scales and with a fuscous postmedial streak on the costa; an indistinct submarginal line. Hind wing iridescent hyaline; the margin pale brown.

*Larva* brown, with a chocolate dorsal band; paired fine black subdorsal lines and whitish slightly waved stigmatic line; the stigmata yellow, with white points and ringed with black; slight setiferous yellow warts; head black, the mouth yellow. Feeds in a colony on *Euphorbia.*

*Hab.* Europe; Gambia; Natal; Aden; Karáchi; Ceylon. *Exp.* 22–24 millim.

b. (Ceutholopha). *Hind wing of male with a streak of large black scales at base of vein* 1 *b.*

4358. **Nephopteryx isidis**, *Zell. Stettin. ent. Zeit.* 1867, p. 375; *Stainton, Trans. Ent. Soc.* 1867, pl. 24, fig. 6; *Rag. Mon. Phyc.* p. 252.

♂. Grey-brown. Fore wing irrorated with rufous and white, or irrorated with black in median interspace and suffused with rufous on outer area; a pale medial line with a reddish band on its inner edge and angled inwards on vein 1, the band expanding on inner area and with a black spot below the cell; a nearly straight pale submarginal line defined by blackish on inner side and rufous on outer; a marginal series of black specks and an apical spot. Hind wing semihyaline white, with prominent streak of black scales on inner area; the margin brownish. Underside of fore wing with subbasal patch of black scales below the cell.

*Hab.* Egypt; Karáchi. *Exp.* 20 millim.

B. *Antennæ of male with the base of shaft strongly sinuous but without tuft.*

4359. **Nephopteryx bicolorella**, *Leech, Entom.* 1889, p. 108, pl. v. fig. 5; *Rag. Mon. Phyc.* p. 275, pl. xliii. fig. 14.

Head and thorax pale chestnut; the patagia pink; abdomen ochreous suffused with fuscous, the anal tuft pinkish. Fore wing long and narrow, the apex rectangular; the basal half pale chestnut; red fasciæ on median nervure and vein 1 with a fold between them and an antemedial tuft of raised scales on vein 1; a pale pink antemedial line very oblique from costa to lower angle of cell; medial tufts of raised red scales on the discocellulars, median nervure, and vein 1; the outer area dark olive-fuscous; a submarginal line bent outwards and minutely dentate between veins 5 and 2, and with a series of pink specks on it from vein 5 to

inner margin, developing into a spot above the margin; a marginal series of black specks; a brown line at base of cilia, which are pink-tipped.

*Hab.* Japan; Dalhousie. *Exp.* 28–32 millim.

SECT. II. (*Palibothra*). Palpi of male with the 2nd joint excised to receive the maxillary palpi, which are minute; the antennæ thickened after the sinus and tuft.

4360. **Nephopteryx fuscogrisella**, *Rag. Bull. Soc. Ent. Fr.* 1889, p. ccxix; *id. Mon. Phyc.* p. 310, pl. xiv, fig. 12.

♀. Pale grey-brown, slightly irrorated with black. Fore wing with traces of a sinuous antemedial line bent inwards to costa and outwards to inner margin; a dark speck at lower angle of cell; an indistinct submarginal line bent outwards between veins 5 and 2; a marginal series of dark specks. Hind wing whitish tinged with fuscous.

*Hab.* E. Africa; Karáchi; New Guinea. *Exp.* 18–22 millim.

4361. **Nephopteryx swinhoella**, *Rag. Mon. Phyc.* p. 311, pl. xiv, fig. 10.

♀. Head and thorax pale, thickly irrorated with rufous; abdomen ochreous. Fore wing pale, thickly irrorated with rufous; an indistinct obliquely curved antemedial pale line, outwardly edged by purplish; two dark discocellular specks; an indistinct purplish submarginal line slightly bent outwards between veins 5 and 2. Hind wing semihyaline white; the costal area and margin tinged with fuscous.

*Hab.* Rangoon. *Exp.* 16 millim.

*4362. **Nephopteryx nebulosella**, *Rag. Mon. Phyc.* p. 311, pl. xiv, fig. 11.

♂. Head and thorax reddish brown; abdomen ochreous suffused with fuscous. Fore wing elongate; brownish ochreous, entirely suffused with fuscous except the apical area; an antemedial pale erect line defined by fuscous at middle and angled inwards on vein 1; two obliquely placed indistinct large discocellular spots; a pale postmedial line bent outwards at vein 5, then oblique. Hind wing semihyaline grey-brown.

*Hab.* Rangoon. *Exp.* 18 millim.

SECT. III. Palpi of male with the 2nd joint dilated and hollowed out to receive the brush-like maxillary palpi.

A. (Thylocoptila). *Antennæ of male with a large tuft of scales at extremity of basal joint; mid tibiæ fringed with long hair; hind tibiæ with tufts of long hair from base and at extremity; hind wing with large corneous ridges above and below on vein* 1 c *and inner margin, enclosing deep furrows and with a small tuft of scales below from base.*

4363. **Nephopteryx paurosema**, *Meyr. Ent. Mo. Mag.* xxii, 1885, p. 106; *Rag. Mon. Phyc.* p. 321.
Bussa maculella, *Rag. Nouv. Gen.* p. 24; *Mon. Phyc.* p. 322, pl. xiii, fig. 21.

♂. Maxillary palpi ochreous; head, thorax, and abdomen grey. Fore wing grey irrorated with fuscous; the basal two-thirds of costa whitish; a large blackish antemedial oval patch not reaching

Fig. 52.—*Nephopteryx paurosema*, ♂. ½.

costa and becoming brown near inner margin; two minute dark discocellular specks; an indistinct postmedial white line bent outwards and minutely dentate between veins 5 and 2, then angled inwards; a marginal series of black specks. Hind wing iridescent hyaline white, the apex tinged with brown; the ridges on inner area ochreous.

*Hab.* Cape Verd Islands; W. Africa; Aden; Assam; Ceylon. *Exp.* 20–24 millim.

B. (Melathrix). *Antennæ of male with the base of shaft thickened by a ridge of scales, but without sinus, the shaft strongly ciliated.*

4364. **Nephopteryx prætextella**, *Christ. Hor. Soc. Ent. Ross.* xii, p. 279, pl. viii, fig. 51; *Rag. Mon. Phyc.* p. 436, pl. xvii, fig. 15.

Ochreous slightly irrorated with fuscous; maxillary palpi black. Fore wing with slight grey tinge; the fuscous irroration thickest on the marginal areas, the outer part of inner margin and the outer area sometimes suffused with fuscous; a dark speck on middle of vein 1 and another at lower angle of cell; traces of a submarginal minutely dentate line or series of specks; a marginal series of black specks. Hind wing semihyaline white; the apical area tinged with fuscous. Underside of male with a black subcostal streak to fore wing from near base to beyond middle; hind wing with a black streak on base of vein 8.

*Hab.* Siberia; Punjab; Sind; Bombay; Burma. *Exp.* 20–26 millim.

C. (Pristarthria). *Antennæ of male with a sinus at base of shaft with scale-teeth in it.*

4365. **Nephopteryx minutella**, *Rag. Bull. Soc. Ent. Fr.* 1885, p. cl; *Mon. Phyc.* p. 326, pl. xiv, fig. 16; *C. & S.* no. 4594.
Oligochroa soricinella, *Rag. Nouv. Gen.* p. 20; *C. & S.* no. 4593.

Pale brown irrorated with grey. Fore wing with a black speck

at base of median nervure; a palo rufous antemedial patch on inner area, with black scales on its inner side; an indistinct medial line angled outwards on subcostal and median nervures, and inwards on vein 1; a dark speck at lower angle of cell; a pale submarginal line excurved between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline white with a slight ochreous tinge; the margin brown.

*Hab.* S. India; Ceylon; Burma. *Exp.*, ♂ 16, ♀ 16–20 millim.

D. *Antennæ of male with a sinus at base of shaft containing a large ridge of scales.*

a. (Salebria). *Antennæ of male not thickened and flattened.*

a'. *Hind wing of male without streaks of black scales on the veins.*

4366. **Nephopteryx morosalis**, *Saalm. Ber. Senck. Nat. Ges.* 1879–80, p. 307; *Rag. Mon. Phyc.* p. 370, pl. xii, fig. 3.

Head and collar rufous and whitish; thorax purplish fuscous; abdomen fuscous and ochreous. Fore wing purplish fuscous; the costal area suffused with grey or pinkish; the veins towards apex streaked with grey; two black medial specks below costa; a large reddish patch with a black and white spot on vein 1 on inner area, running along inner margin towards base. Hind wing semihyaline whitish; the outer area and a line through the cilia brownish.

*Hab.* W. and S. Africa; Madagascar; Amur; N.W. Himalayas. *Exp.* 20–24 millim.

4367. **Nephopteryx palumbella**, *Schiff. Wien. Verz.* p. 138; *Rag. Mon. Phyc.* p. 333.

Tinea contubernella, *Hübn. Samml. eur. Schmett.* fig. 72.
Acrobasis undulatella, *Wlk. Cat.* xxxv, p. 1711; *C. & S.* no. 4589.

Head and thorax rufous, suffused with grey; abdomen ochreous. Fore wing with the basal area rufous, with a grey patch on it; a sinuous black antemedial line, angled in cell, with a red band on its inner edge and two tufts of raised black scales below the cell; the rest of the wing grey, with rufous suffusion on inner area; a black spot at lower angle of cell; a submarginal black line strongly incurved above vein 5, excurved to vein 2, then sharply angled inwards, a rufous band beyond it; a marginal black spot below apex, then a conjoined series of marks. Hind wing semihyaline whitish; the apical area, a marginal line, and a line through the cilia brownish.

*Hab.* Palæarctic region; Ceylon. *Exp.* 26–38 millim.

*4368. **Nephopteryx eximiella**, *Rag. Mon. Phyc.* p. 339, pl. xxvi, fig. 4.

Head pinkish ochreous; thorax grey irrorated with vinous red;

abdomen ochreous tinged with fuscous. Fore wing narrow; ochreous olive-brown, the basal area and apical third of wing dull vinous red; a small white patch on basal part of costa; a large medial white patch on costa irrorated with a few black scales, and enclosing the black discocellular patch; an oblique antemedial white line, with some raised red scales on its outer edge, widening at costa; an oblique postmedial white line angled at middle; a white streak separating the ochreous and red areas on disk; outer area irrorated with white. Hind wing semihyaline brownish yellow; cilia paler.

*Hab.* Karáchi. *Exp.* 18 millim.

b′. *Hind wing of male with the basal inner area clothed with ochreous scales, beyond which are short black streaks on the veins.*

4369. **Nephopteryx strigivenata**, n. sp.

♂. Head ochreous and brown, with some black at base of palpi and on antennal tuft; thorax grey; abdomen fuscous brown, with some grey on dorsum of basal segments. Fore wing grey, irrorated with fuscous and purplish scales; the basal half of inner area with an ochreous tinge, and black subbasal specks on vein 1; a fine medial deep black line obsolete towards costa and bent outwards to inner margin; a fine black discocellular line; fine black submarginal and marginal lines, the former slightly bent outwards at vein 5. Hind wing hyaline, with the ochreous and black sexual markings; the apex fuscous; a fine fuscous marginal line and line through the cilia.

*Hab.* Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

b. (Oligochroa). *Antennæ of male thickened and flattened.*

4370. **Nephopteryx leucophæella**, *Zell. Stettin. ent. Zeit.* 1867, p. 390; *Rag. Mon. Phyc.* p. 378, pl. xii, fig. 15.

♂. Head and thorax fuscous black; abdomen fuscous. Fore wing fuscous black; a few grey scales on median nervure; a patch of grey scales on middle of inner margin and a black spot surrounded by grey scales on vein 1; the veins beyond the cell with a few grey scales on them and a series of short dark streaks. Hind wing pure white, the apex slightly tinged with fuscous.

*Hab.* Calcutta. *Exp.* 24 mm.

4371. **Nephopteryx akbarella**, *Rag. Nouv. Gen.* p. 20; *Mon. Phyc.* p. 391, pl. xv, fig. 19; *C. & S.* no. 4590.

Spermatophthora pulverulenta, *Warr. P. Z. S.* 1888, p. 336 *Rag Mon. Phyc.* p. 392, pl. xli, fig. 18; *C. & S.* no. 4507.

Ochreous. Fore wing irrorated with fuscous, leaving an ochreous streak in the cell and another below median nervure; traces of three medial dark specks on the veins, the speck on vein 1

sometimes with a white spot on a rufous patch; traces of two discocellular specks; an indistinct curved postmedial series of dark specks sometimes with pale specks beyond them; a marginal series of dark specks. Hind wing white with a slight ochreous tinge.

The variety *pulverulenta* is greyer and without the ochreous tinge.

*Hab.* W. Africa; Punjab; Sind; Bombay; Ceylon; Burma. *Exp.* 22–26 millim.

*4372. **Nephopteryx sindella**, *Rag. Mon. Phyc.* p. 380, pl. xli, fig. 16.

♀. Head and thorax fuscous grey; legs and abdomen blackish. Fore wing narrow, the outer margin rounded; uniform blackish brown, the apex somewhat paler; an oblique pale antemedial line angled inwards and paler on vein 1; a postmedial pale line outwardly defined by fuscous, slightly excurved at middle and angled inwards below vein 2; an interrupted marginal blackish line followed by a fine ochreous line. Hind wing semihyaline iridescent white; the veins, costa, two marginal lines, and the cilia brownish.

*Hab.* Sind. *Exp.* 23 millim.

*4373. **Nephopteryx nodicornella**, *Rag. Nouv. Gen.* p. 21; *Mon. Phyc.* p. 386, pl. xiii, fig. 14; *C. & S.* no. 4592.

♂. Antennæ much thickened, the tuft and basal joint large. Head, thorax, and abdomen reddish ochreous; frons whitish. Fore wing narrow, brownish ochreous, the base of inner margin irrorated with fuscous; the medial area brown; a pale antemedial line bordered with fuscous and slightly angled at middle; two large nearly conjoined brown discocellular spots, very obliquely placed; a postmedial pale line bent outwards at vein 5 and oblique towards inner margin; an indistinct marginal series of specks. Hind wing semihyaline ochreous, the apex tinged with brown; the outer margin slightly excised below apex.

*Hab.* Lahore. *Exp.* 20 millim.

4374. **Nephopteryx semirubella**, *Scop. Ent. Carn.* p. 245; *Rag. Mon. Phyc.* p. 416, pl. xvii, fig. 4; *C. & S.* no. 4588.
Tinea carnella, *Linn. Syst. Nat.* xii, p. 887.
Tinea sanguinella, *Hübn. Samml. eur. Schmett.* fig. 65.

Palpi and head pinkish; antennæ brown; thorax and abdomen ochreous, the shoulders pink. Fore wing with a white fascia on costa; a pink fascia from base through the cell, widening to outer margin and apex; the inner area bright yellow; the cilia pink. Hind wing pale brown, tinged with pink towards outer margin.

*Larva* a dull bronze-black; the skin wrinkled and folded transversely; the dorsal lines indistinct; the head black; the stigmata and a large ocellated patch on 1st somite black, with narrow white rings. Feeds on *Lotus*, *Hippocrepis*, *Trifolium*, &c.

*Hab.* Europe; Syria; Siberia; Japan; China; Dharmsála. *Exp.* 24–32 millim.

## Genus EPICROCIS.

Epicrocis, *Zell. Isis*, 1848, p. 878.
Canthelea, *Wlk. Cat.* xxxv, p. 1726 (1866).
Gabra, *Wlk. Cat.* xxxv, p. 1727.
Candiope, *Rag. Nouv. Gen.* p. 14 (1888).

Type, *E. festivella*, Zell.

*Range.* Ethiopian and Oriental regions to Australia.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and acuminate; frons roughly scaled; tibiæ thickly scaled, the outer spurs about half the length of inner. Fore wing with the apex rectangular; vein 3 from before angle of cell; 4, 5 well separated at origin; 10, 11 free. Hind wing with vein 2 from before angle of cell; 3 approximated to 4, 5 for some distance; 6, 7 from upper angle.

SECT. I. Maxillary palpi of male filiform; hind wing with vein 7 anastomosing with 8.

A. (Canthelea). *Antennæ of male thickened, flattened, and simple.*

4375. **Epicrocis ægnusalis**, *Wlk. Cat.* xix, p. 905; *Rag. Mon. Phyc.* p. 234, pl. ix, fig. 11; *C. & S.* no. 4570.
Homœosoma gratella, *Wlk. Cat.* xxvii, p. 26.
Homœosoma derasella, *Swinh. P. Z. S.* 1885, p. 877, pl. 57, fig. 19; *C. & S.* no. 4607.

Pale olive-brown; the head and shoulders suffused with pink. Fore wing with a diffused pink fascia from base, curving round to inner margin before middle; an obliquely curved antemedial pink band more or less obsolescent towards costa, and often conjoined in the cell to the pink discocellular patch, which sends an oblique pink fascia to the apex and another to the irregular marginal pink band at outer angle; cilia tinged with pink towards apex. Hind wing ochreous; the apical area suffused with fuscous.

Fig. 53.—*Epicrocis ægnusalis*, ♂. ½.

The markings of the fore wing vary considerably in the extent and brightness of the pink.

*Hab.* Madagascar; China; throughout India, Ceylon, and Burma; Sumatra; Australia. *Exp.* 20 millim.

4376. **Epicrocis lateritialis**, *Wlk. Cat.* xxvii, p. 74; *Rag. Mon. Phyc.* p. 236, pl. xxii, fig. 16; *C. & S.* no. 4571.
Nephopteryx concolorella, *Wlk. Cat.* xxxv, p. 1721.
Nephopteryx laxalis, *Swinh. P. Z. S.* 1885, p. 877; *C. & S.* no. 4581.

Head and thorax brownish pink; abdomen ochreous. Fore wing pale brown, suffused with pink and irrorated with fuscous except on inner area; the costa whitish; very obscure dark diffused oblique antemedial and erect medial bands. Hind wing pale fuscous; the cilia whitish.

*Hab.* The plains of India, Ceylon, and Burma; Andamans. *Exp.* 20 millim.

B. (Candiope). *Antennæ of male ciliated and not thickened.*

4377. **Epicrocis joannisella**, *Rag. Nouv. Gen.* p. 14; *Mon. Phyc.* p. 223, pl. x, fig. 12; *C. & S.* no. 4569.

Head whitish; thorax pale red-brown, suffused with grey and irrorated with fuscous; abdomen grey-brown. Fore wing with the basal area pale red-brown, traversed by an oblique band of grey and fuscous scales, this area bordered by an oblique white-edged dark line angled inwards on vein 1; the outer area grey irrorated with fuscous; a black and white speck at lower angle of cell, with some brown suffusion below it; a red-brown marginal band, inwardly edged by a white line bent inwards to costa and with some black points on it; a marginal series of black specks; the cilia grey and fuscous. Hind wing semihyaline, with a slight brown tinge.

*Hab.* Aden; S. India; Ceylon. *Exp.* 16 millim.

4378. **Epicrocis uberalis**, *Swinh. P. Z. S.* 1884, p. 523, pl. 48, fig. 10 *C. & S.* no. 4470.

Head and thorax white irrorated with brown; abdomen white. Fore wing brown, thickly irrorated with white; a very obliquely curved antemedial white line; the median nervure streaked with white, expanding and embracing a dark spot at lower angle of cell; the veins beyond upper angle streaked with white; an oblique submarginal white line from below apex; a white marginal band, with a series of dark specks on the margin. Hind wing white, with marginal brown line and line through the cilia.

*Hab.* St. Vincent; Karáchi. *Exp.* 20 millim.

Sect. II. (*Epicrocis*). Palpi of male with the 2nd joint hollowed out and containing the maxillary palpi, which end in a long tuft of hair; the 3rd joint short; antennæ with the base of shaft slightly sinuous and with a small ridge of scales on it; hind wing with vein 8 free.

4379. **Epicrocis festivella**, *Zell. Isis,* 1848, p. 878; *Rag. Mon. Phyc.* p. 438, pl. xii, fig. 12; *C. & S.* no. 4595.
Pyralis ratoalis, *Wlk. Cat.* xix, p. 916.
Scopula albigeralis, *Wlk. Cat.* xxxiv, p. 1468.
Gabra tinealella, *Wlk. Cat.* xxxv, p. 1727.

Head and thorax rufous, marked with grey; abdomen ochreous, fuscous towards extremity. Fore wing with the basal area bright chestnut, bounded by an oblique white band often diffused outwards; the outer area chestnut, variegated with grey and purplish shades; a discocellular black lunule with a diffused white patch beyond it; two dark somewhat irregular submarginal lines becoming obsolescent below vein 4; the cilia grey, with dark lines through them. Hind wing semihyaline and pale ochreous.

*Hab.* S. Africa; Dharmsála; Ceylon; Java. *Exp.* 18–20 millim.

4380. **Epicrocis hilarella**, *Rag. Nouv. Gen.* p. 22; *id. Mon. Phyc.* p. 438, pl. xii, fig. 7.

Differs from *festivella* in the white band of fore wing bounding the basal area being angled inwards on vein 1; a speck at lower angle of cell, with a white streak beyond it instead of the lunule and patch; the marginal area fuscous, obscuring the lines. Hind wing browner.

*Hab.* China; Murree; Simla; Ceylon. *Exp.* 20 millim.

## Genus HYPARGYRIA.

Hypargyria, *Rag. Nouv. Gen.* p. 9 (1888).

Type, *H. metaliferella*, Rag.

*Range.* Neotropical and Ethiopian regions; Punjab; Ceylon.

Palpi upturned, the 2nd joint not reaching vertex of head, the 3rd long, thick and blunt; maxillary palpi filiform; antennæ of male with the basal joint much dilated at summit, and giving off a curved hook on inner side, the shaft thickened and flattened; mid tibiæ dilated, with a fold containing an expansile tuft of long hair; anal tuft very large. Fore wing with vein 3 from near angle of cell; 4, 5 stalked; 10 free; male with the base of costa and vein 12 slightly thickened below. Hind wing with the cell rather short; vein 2 well before angle; 3 from angle; 4, 5 on a long stalk; 6, 7 stalked, 7 anastomosing with 8; hyaline streaks in interspaces of basal area.

4381. **Hypargyria metalliferella**, *Rag. Nouv. Gen.* p. 9; *Mon. Phyc.* p. 123, pl. iv, fig. 22; *C. & S.* no. 4565.

Ochreous brown irrorated with grey; male with the anal tuft jet-black. Fore wing tinged with vinous red; the costal area broadly suffused with white; two dark specks at base of costa; a broad ochreous antemedial band, with a ridge of raised vinous scales before it; traces of a dark speck at upper angle of cell, and of an oblique submarginal line. Hind wing semi-hyaline, the veins darker; the apical area opalescent; a dark marginal line. Underside with black spots below the thickenings of costa and vein 12; the outer half of fore wing and apical area of hind wing brilliant silver in the male.

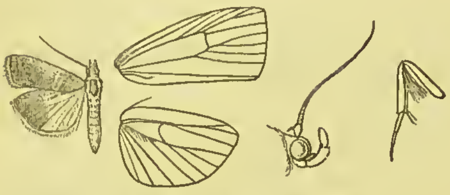

Fig. 54.—*Hypargyria metalliferella*, ♂. ½.

*Hab.* W. and E. Africa; Punjab; Ceylon. *Exp.* 17–22 millim.

4382. **Hypargyria ferrella**, n. sp.

♀. Ferruginous brown, with slight ochreous irroration. Fore wing with traces of pale sinuous medial and submarginal lines; a dark costal fascia from the medial line to apex; slight dark streaks on the veins beyond lower angle of cell. Hind wing semi-hyaline white; the margin tinged with ochreous.

*Hab.* Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

## Genus **MYELOIS**.

Myelois, *Hübn. Verz.* p. 371 (? 1818).

Type, *M. cribrella*, Hübn., from Europe.

*Range.* Universally distributed.

Palpi upturned, reaching vertex of head, and thickly scaled; maxillary palpi filiform; frons thickly scaled; tibiæ smoothly scaled, the outer spurs about two-thirds length of inner. Fore wing rather long and narrow; the apex rounded; vein 3 from before angle of cell; 4, 5 on a long stalk; 10, 11 free. Hind wing with the cell half the length of wing; vein 2 from well before angle; 3 from angle; 4, 5 on a long stalk; 6, 7 from upper angle.

In the typical section the antennæ of male are ciliated.

Sect. II. Antennæ of male bipectinated, with short branches for about two-thirds length.

4383. **Myelois pectinicornella**, n. sp.

♂. Grey irrorated with fuscous. Fore wing with the veins streaked with fuscous; a dark-edged irregularly dentate antemedial grey line; a discocellular band; a minutely dentate sub-

marginal dark-edged grey line; a marginal series of dark specks. Hind wing semihyaline tinged with fuscous; a marginal fuscous line.

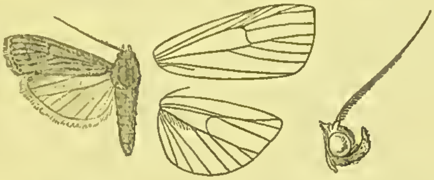

Fig. 55.—*Myelois pectinicornella*, ♂. 1/1.

*Hab.* Bhután (*Dudgeon*). *Exp.* 30 millim. Type in B. M.

## Genus HYPSIPYLA.

Hypsipyla, *Rag. Nouv. Gen.* p. 10 (1888).

Type, *H. robusta*, Moore.
*Range.* Himalayas; Ceylon.

Palpi upturned and slender, the 2nd joint reaching above vertex of head, the 3rd long and acuminate, maxillary palpi filiform; antennæ of male somewhat thickened and ciliated; mid and hind tibiæ with tufts of spinous hair on outer side at base and extremity. Fore wing narrow; vein 2 from near angle of cell; 4, 5 approximated for a short distance; 10, 11 free. Hind wing with the cell half length of wing; vein 2 from well before angle; 3 from angle; 4, 5 shortly stalked; 6, 7 from upper angle, 7 anastomosing with 8.

4384. **Hypsipyla robusta**, *Moore, Lep. Ceyl.* iii, p. 365, pl. 184, figs. 4, 4*a* (larva); *Rag. Mon. Phyc.* p. 139, pl. vi, fig. 12; *C. & S.* no. 4598.
Hypsipyla pagodella, *Rag. Nouv. Gen.* p. 10; *C. & S.* no. 4566.

Pale rufous brown irrorated with black and grey. Fore wing with the costal half strongly suffused with grey: the veins all streaked with black; some olive-yellow on base of costa and median nervure, on extremity of median nervure and discocellulars; traces of a dark sinuous medial line, with a dark patch beyond it on inner margin, and of a very highly dentate oblique dark postmedial line bent outwards between veins 5 and 2. Hind wing semihyaline white; the costal area suffused with fuscous; the base of cilia pale rufous.

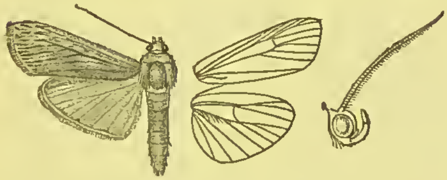

Fig. 56.—*Hypsipyla robusta*, ♂. 1/1.

*Larva* purplish grey, with a few short hairs; somites spotted with black and with a lateral series of red spots; head and dorsal patch on 2nd somite black. Feeds in the small branches of mahogany. Pupa purplish brown, in an elongate silken cover.

*Hab.* Simla; Dharmsála; Sikhim; Ceylon. *Exp.*, ♂ 26–32, ♀ 28–42 millim.

## Genus PHYCITA.

Phycita, *Curt. Brit. Ent.* vi, p. 233 (1840).
Dioryctria, *Zell. Isis,* 1846, p. 732.
Piesmopoda, *Zell. Isis,* 1848, p. 863.
Elasmopalpus, *Blanch. Gay's Chili,* vii, p. 104 (1852).
Guastica, *Wlk. Cat.* xxvii, p. 80 (1863).
Calguia, *Wlk. Cat.* xxvii, p. 83 (1863).
Volobilis, *Wlk. Cat.* xxvii, p. 111.
Magiria, *Zell. Stettin. ent. Zeit.* 1867, p. 392.
Cabragus, *Moore, Lep. Ceyl.* iii, p. 370 (1886).
Hydaspia, *Rag. Nouv. Gen.* p. 22 (1888).
Sigmarthria, *Rag. Nouv. Gen.* p. 23.
Cavipalpia, *Rag. Mon. Phyc.* p. 154 (1894).

Type, *P. spissicella*, Fabr., from Europe.

*Range.* Universally distributed.

Palpi upturned, the 2nd joint reaching vertex of head; tibiæ thickly scaled, the outer spurs about two-thirds length of inner. Fore wing rather narrow; the costa arched; the apex rectangular; vein 3 from close to angle of cell; 4, 5 approximated for a short distance; 10, 11 free. Hind wing with the cell about one-third length of wing; vein 2 from well before angle; 3 from angle; 4, 5 on a long stalk; 6, 7 stalked.

Sect. I. Palpi of male with the second joint not hollowed out to receive the maxillary palpi.

A. *Antennæ of male with a large sinus at base of shaft, containing a large hollowed-out tuft of scales, the shaft then thickened and flattened.*

a. (Piesmopoda). *Maxillary palpi of male filiform; fore wing with no ridge of hair on vein 1 below.*

4385. **Phycita bipartella**, n. sp.

Head, thorax, abdomen, and basal part of fore wing greyish ochreous, slightly irrorated with fuscous; metathorax with a small rufous tuft. Fore wing with a slight rufous tinge at base, followed by thicker fuscous irroration; the pale basal area bounded by a slightly sinuous rufous line; the outer half of wing fuscous, becoming grey towards the margin; two black discocellular specks and a slight ochreous lunule; a marginal series of black specks. Hind wing semihyaline white, with a marginal brown line, a line through the cilia.

*Hab.* Ceylon (*Pole*). *Exp.* 20 millim. Type in B. M.

b. (Guastica). *Maxillary palpi triangularly scaled and flattened against the frons; fore wing with a ridge of long ochreous hair covering a streak of black membrane on vein 1 below.*

4386. **Phycita semilutea**, *Wlk. Cat.* xxvii, p. 81.
Piesmopoda auropurpurella, *Rag. Bull. Soc. Ent. Fr.* 1889, p. ccxviii; *Mon. Phyc.* p. 161, pl. vi, fig. 24.

Head vinous red; antennæ with the tuft black, the shaft

ochreous; thorax and abdomen yellow. Fore wing with the basal half bright yellow; the costa rufous, irrorated with white; the outer half of wing chestnut, becoming purplish fuscous towards the margin; the costal area broadly suffused with white; slight postmedial white streaks on veins 3 and 4; a minutely waved submarginal white line, and some white irroration just inside the margin. Hind wing pale fuscous.

*Hab.* Bhután; Nágas; Borneo; New Guinea. *Exp.* 18 millim.

B. (Dioryctria). *Antennæ of male with a small tuft of scales on shaft near base.*

4387. **Phycita abietella**, *Schiff. Wien. Verz.* p. 138.
Tinea decuriella, *Hübn. Samml. eur. Schmett.* fig. 74.
Tinea sylvestrella, *Ratz. Fortz.* i, p. 244, pl. 15, fig. 1.
Pinipestis abietivorella, *Grote, Bull. U. S. Geol. Surv.* iv. p. 701.

Head, thorax, and abdomen grey and fuscous. Fore wing grey, thickly irrorated and suffused with fuscous; a dark brown patch on base of inner area; a dark antemedial line with a grey band on its inner edge, angled outwards below costa and inwards on median nervure and vein 1; a large brown patch inside the grey band, less prominent towards costa; a prominent quadrate discocellular grey spot with a brown patch below it; a grey-edged dark postmedial line angled inwards at vein 6, then bent outwards and minutely dentate, some brown suffusion beyond the line; a prominent marginal series of dark specks. Hind wing semihyaline with a brown tinge; the cilia white, with a brown line at base.

The prominence of the grey and fuscous markings of fore wing varies considerably.

*Hab.* United States; Europe; Japan; Simla. *Exp.* 22–34 millim.

4388. **Phycita dentilinella**, n. sp.

♀. Head, thorax, abdomen, and fore wing brown irrorated with grey; the last with oblique highly dentate white antemedial line; a dark discocellular lunule; a minutely dentate dark postmedial line slightly bent outwards at vein 5 and defined by grey on the outer side; a marginal series of dark specks. Hind wing pale brownish and semihyaline; the veins and apical area browner; cilia grey, with a brown line through them.

*Hab.* Manipur (*Doherty*). *Exp.* 32 millim. Type in coll. Elwes.

4389. **Phycita cyclogramma**, n. sp.

♀. Head, thorax, and abdomen grey irrorated with red-brown and fuscous. Fore wing grey irrorated with fuscous; a red-brown fascia on base of inner margin; a large pale red antemedial patch on inner area, surrounded with white and with a semicircular tuft of raised black scales on its inner side; an obliquely curved antemedial dark line; the outer half of costal area suffused with pink;

a pink discocellular lunule, with an oblique fuscous streak below it; a grey submarginal line edged with pinkish and angled inwards below costa; a marginal series of dark specks. Hind wing semi-hyaline pale fuscous; the cilia white, with a fuscous line through them.

*Hab.* Nágas (*Doherty*); Ceylon (*Green*). *Exp.* 28 mm. Type in B. M.

C. *Antennæ of male with the basal joint dilated and with a strong tooth on inner side; the shaft with long cilia.*

4390. **Phycita olivalis**, n. sp.

♂. Head and thorax olive-brown, the vertex of head grey; abdomen fuscous, pale on dorsum. Fore wing olive-green; a subbasal triangular white patch on costa irrorated with pink, its apex not reaching inner margin; a large white postmedial patch on costa irrorated with pink, with a black speck on it at upper angle of cell, extending along costa to the submarginal line, its apex on vein 2; a nearly straight submarginal, rather indistinct white line interrupted below costa by the oblique olive fascia from apex; a large white patch on middle of outer area; a series of black marginal specks. Hind wing semihyaline brown.

*Hab.* Ceylon (*Yerbury*, *Pole*). *Exp.* 18–20 millim. Type in B.M.

D. *Males unknown.*

a. *Frons with a conical prominence; tibiæ without tufts of spinous hair.*

4391. **Phycita chloropterella**, n. sp.

♀. Head, thorax, and abdomen olive-yellow; palpi with the 3rd joint fuscous; frons and basal joint of antennæ in front fuscous; the collar, extremity of patagia, and metathorax vinous red. Fore wing olive-yellow; the basal half of costa blackish; the outer half of costal area suffused with white and irrorated with olive and pale rufous scales; faint traces of a curved antemedial white line on costal area; traces of a white submarginal line. Hind wing fuscous brown; the cilia ochreous.

*Hab.* Ceylon (*Green*); Rangoon; Borneo. *Exp.* 20 millim. Type in B. M.

b. *Frons not prominent; mid and hind tibiæ with tufts of spinous hair on outer side at base and extremity.*

4392. **Phycita pachylepidella**, n. sp.

♀. Head, thorax, and abdomen brown irrorated with grey and fuscous. Fore wing with the basal area pale brown, becoming grey towards the antemedial line, which consists of a ridge of raised black scales; the basal costal area irrorated with rufous; a pale

brown patch on outer edge of the antemedial line not reaching the costa; a large diffused triangular blackish patch irrorated with grey and pink with its apex on vein 1, including the two discocellular specks and extending almost to the black-outlined grey submarginal line which is angled inwards on vein 5; a marginal series of dark specks. Hind wing semihyaline; the veins brown; the cilia grey, with a fuscous line through them.

*Hab.* Bhután (*Dudgeon*); Nágas (*Doherty*). *Exp.* 18 millim. Type in B. M.

4393. **Phycita steniella**, *Rag. Bull. Soc. Ent. Fr.* 1890, p. ccxiii; *id. Mon. Phyc.* p. 163, pl. vi, fig. 23.

♀. Grey-brown, legs white banded with black. Fore wing with white costal fascia irrorated with pink and black scales and diffused over the cell and area beyond it; a black-edged conical rufous patch from inner margin just before middle to subcostal nervure; two black discocellular specks; a grey submarginal line defined by fuscous and slightly bent at veins 6 and 2; the inner area tinged with rufous. Hind wing semihyaline white, the apex tinged with fuscous; both wings with fine dark marginal line and line through the cilia.

*Hab.* Ceylon; Shán States. *Exp.* 16 millim.

c. *Frons not prominent; tibiæ smoothly scaled.*

4394. **Phycita albilavalis**, n. sp.

♀. Vinous red-brown irrorated with fuscous. Fore wing with the costal area and cell suffused with white, a white subcostal fascia being most prominent; a few grey scales an inner and outer areas; two black discocellular specks; a submarginal grey line bent outwards from vein 6 to near apex, straight from vein 6 to inner margin, the veins of outer area reddish. Abdomen and hind wing pale brown.

*Hab.* Nágas; Ceylon. *Exp.* 20 millim. Type in B. M.

4395. **Phycita obliquifasciella**, n. sp.

♀. Head and thorax clothed with fuscous and pink scales. Fore wing brown irrorated with grey; a pink basal patch with black outer edge; an oblique pink and grey antemedial band, with a sinuous dark line near its inner edge and a ridge of raised dark scales on its outer edge; the outer half of costa suffused with pink; two indistinct dark discocellular specks; an indistinct submarginal dark line excurved and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline with a marginal brown line.

*Hab.* Dharmsála (*Hocking*). *Exp.* 20 millim. Type in B. M.

4396. **Phycita clientella**, *Zell. Stettin. ent. Zeit.* 1867, p. 396; *Rag. Mon. Phyc.* p. 183, pl. xi, fig. 18; *C. & S.* no. 4567.
Phycita clientulella, *Rag. Mon. Phyc.* p. 184, pl. xxvi, fig. 3.

♀. Head, thorax and abdomen pale red-brown, the collar grey. Fore wing pale red-brown, suffused with grey and slightly irrorated with black; a sinuous grey medial line outlined with brown, and with a triangular red-brown patch on its inner edge not reaching the costa; an indistinct discocellular lunule; a black speck at lower angle of cell, and short black streaks on veins 3, 4, 5, just beyond the angle; a submarginal brown-outlined grey line excurved between veins 5 and 2; a prominent marginal series of black specks. Hind wing iridescent semihyaline with an ochreous tinge. The form *clientulella* is fuscous and grey without any red-brown tinge; the hind wing greyish white.

*Hab.* Calcutta; Bombay; Ceylon. *Exp.* 22 millim.

4397. **Phycita eulepidella**, n. sp.

♀. Head and thorax fuscous thickly irrorated with blue-grey; abdomen fuscous, with pale segmental rings. Fore wing fuscous thickly irrorated with blue-grey and with a few purple scales on costa and outer area; an oblique dark line inwardly defined by grey from costa before middle to middle of inner margin; two dark discocellular specks; a postmedial dark line outwardly defined by grey and slightly excurved between veins 5 and 2; a marginal series of dark specks. Hind wing ochreous white; the apical area fuscous; a brown marginal line and line through the cilia.

*Hab.* Kandy, Ceylon (*Green*). *Exp.* 18 millim. Type in B. M.

4398. **Phycita proximalis**, *Wlk. Cat.* xxvii. p. 68.

♀. Head, thorax, and abdomen grey irrorated with fuscous; collar ochreous brown. Fore wing grey irrorated with fuscous, the costa and outer half of wing irrorated with pinkish brown; an antemedial dark-edged whitish line bent inwards to costa, with a large olive patch on its inner edge and some reddish scales below the costa; two dark discocellular specks; a grey dark-edged post-medial line angled inwards below costa, bent outwards and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline with a brownish tinge; a brown marginal line and a line through the cilia.

*Hab.* Nilgiris; Borneo. *Exp.* 28–32 millim.

4399. **Phycita majoralis**, n. sp.

♀. Head, thorax, and abdomen brown. Fore wing fuscous brown irrorated with grey, the base brownish; an antemedial ridge of raised scales, with an ochreons band beyond it not reaching the costa; an indistinct pale antemedial line; an ochreous discocellular patch emitting streaks along the veins beyond the cell;

a pale submarginal line excurved between veins 5 and 2; a marginal series of black specks. Hind wing pale and semihyaline; the apical area, veins, margin, and a line through the cilia brown.

*Hab.* Bhután (*Dudgeon*). *Exp.* 34 millim. Type in B. M.

4400. **Phycita hemixanthella**, n. sp.

♀. Head, thorax, abdomen, and basal half of fore wing ochreous with a rufous tinge; the pale area of fore wing bounded by a slightly sinuous dark medial line, with a pale line on its inner edge below the cell and emitting a dark costal spur on its outer side; the outer area olive-brown; an indistinct dark discocellular band; a slightly sinuous white submarginal line, with grey costal patch inside it; the area beyond it rufous, with some white at apex and fuscous on the margin. Hind wing semihyaline; the veins, apical area, a marginal line, and a line through the cilia brown.

*Hab.* Nága Hills (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

Sect. II. (*Cavipalpia*). Palpi of male with the 2nd joint hollowed out to receive the maxillary palpi, which are flat and triangular; antennæ strongly ciliated.

*4401. **Phycita translucidella**, *Rag. Mon. Phyc.* p. 154, pl. vi, fig. 16.

♂. Pale ochreous; patagia reddish. Fore wing with a medial line of raised scales slightly oblique and diffused outwards along costa; a submarginal pale line slightly outlined with brown, hardly excurved at middle and ending at outer angle; cilia with two fine dark lines at base. Hind wing semihyaline white; the costa and veins slightly darker.

*Hab.* Hyderabad, Sind. *Exp.* 20 millim.

Sect. III. Palpi of male with the 2nd joint dilated and hollowed out to receive the brush-like maxillary palpi.

A. *Antennæ of male with a sinus containing a large hollowed-out tuft of scales at base of shaft.*

a. (Volobilis). *Male with the anal angle of hind wing lobed and fringed with very long hair.*

4402. **Phycita biplaga**, *Wlk. Cat.* xxvii, p. 111.

♂. Maxillary palpi ochreous. Head and thorax bright red-brown; abdomen ochreous. Fore wing bright red-brown, the base of costa blackish; a pale antemedial line oblique from costa to median nervure and with a large quadrate costal black patch beyond it extending to lower angle of cell, where there is a white speck; a blackish submarginal line angled at vein 4 and with traces of

another line beyond it; a marginal series of dark specks. Hind wing dark fuscous; the cilia and fringe at anal angle ochreous. ♀ with the hind wing pale; the apex tinged with fuscous.

*Hab.* Ceylon; Borneo. *Exp.* 24 millim.

b. (Magiria). *Male with no lobe and fringe at anal angle of hind wing.*

a′. *Antennæ of male ciliated.*

4403. **Phycita imparella**, *Zell. Stettin. ent. Zeit.* 1867, p. 393, pl. ii, fig. 2; *Rag. Mon. Phyc.* p. 320, pl. vii, fig. 7; *C. & S.* no. 4597.

Maxillary palpi of male pinkish. Head, thorax, and abdomen brown irrorated with grey. Fore wing reddish brown irrorated with black; the costal area suffused with white and irrorated with fuscous, this area enclosing a dark streak in base of cell, sending an antemedial tooth towards inner margin, and somewhat contracted at end of cell; the veins beyond the cell streaked with black and with a series of white specks on them; a marginal series of black specks. Hind wing pale and semihyaline; a brown marginal line and a line through the cilia.

*Hab.* Sikhim. *Exp.*, ♂ 32, ♀ 40 millim.

b′. *Antennæ of male with uniseriate pectinations.*

4404. **Phycita pectenella**, n. sp.

♂. Grey. Fore wing with the ground-colour whitish, thickly irrorated with fuscous; a fuscous-edged oblique sinuous white antemedial line with large rufous patch before it not reaching the costa and with black speck on its inner edge; two obliquely-placed black discocellular specks; an irregular pale submarginal line with dark line on its inner edge and dentate between veins 6 and 2. Hind wing pale, semihyaline, with fine dark marginal line.

*Hab.* Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

B. (Elasmopalpus). *Antennæ of male with a large ridge of scales in the sinus at base of shaft; frons with a conical tuft.*

4405. **Phycita jasminophaga**, n. sp.

Head and thorax grey irrorated with brown; abdomen brown. Fore wing grey irrorated with brown; an obliquely waved antemedial grey line outwardly defined by brown; two brown discocellular specks; a submarginal brown-outlined grey line, slightly excurved and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline with a slight brown tinge; a brown marginal line and a line through the cilia.

*Larva* dull green; head with several diagonal stripes on each

side; the 1st somite reddish, the 2nd black; a dark dorso-lateral stripe, below which is a small black spot on each somite.

Feeds amongst the flower-buds and young leaves of *Jasminum sambac*, often completely mining every flower-head.

*Hab.* Bhután (*Dudgeon*); Ceylon (*Green*). *Exp.* 20 millim. Type in B. M.

C. (Hydaspia). *Antennæ of male thickened and laminate, with a large ridge of scales in the basal sinus.*

4406. **Phycita dorsipunctella**, *Rag. Nouv. Gen.* p. 22; *id. Mon. Phyc* p. 440, pl. xii, fig. 9; *C. & S.* no. 4596.

Head and thorax pale rufous; the antennal ridge of scales black; abdomen ochreous. Fore wing irrorated with a few black scales; a broad white costal fascia irrorated with pink; the cell and area beyond it and the greater part of interno-median interspace chestnut; the inner and outer areas paler, with a pinkish tinge; a black spot varying in size on middle of vein 1; the veins beyond the cell often streaked with black, especially in the female. Hind wing pale brown; cilia grey, with a brown line through them.

*Hab.* Kashmir; Punjab; Nilgiris; Ceylon. *Exp.*, ♂ 22, ♀ 26 millim.

D. *Antennæ of male thickened and laminate, with a slight sinus and ridge of scales at base.*

4407. **Phycita flavitinctella**, *Rag. Mon. Phyc.* p. 418, pl. xvii, fig. 9.

Head whitish; thorax and abdomen ochreous. Fore wing with the base yellow, followed by an obliquely curved fuscous-irrorated grey band extending on costa almost to the base, its outer edge with a ridge of raised red scales followed by a medial yellow band; the outer area with the disk ochreous; the margins grey irrorated with fuscous. Hind wing semihyaline; the apex and margin fuscous.

*Hab.* Poona; Ceylon. *Exp.* 16 millim.

E. *Antennæ of male with long uniseriate branches for two-thirds length, the base of shaft slightly thickened with scales.*

4408. **Phycita hyemalis**, *Butl. P. Z. S.* 1880, p. 689; *Rag. Mon. Phyc.* p. 377, pl. xli, fig. 17.

Head and thorax glossy black; abdomen fuscous. Fore wing glossy black; some grey scales and black specks on median nervure and the veins beyond the cell; some grey scales and a black speck and sometimes also a white spot on middle of vein 1; the outer area irrorated with grey scales; a marginal series of black specks. Hind wing pure white; the apical area, a marginal line, and a line through the cilia brownish.

*Hab.* Formosa; Ceylon. *Exp.* 26 millim.

F. (Calguia). *Palpi long, in female with a tuft of hair at extremity of 2nd joint behind, the 3rd joint thickly scaled, the maxillary palpi long; in male the brush-like maxillary palpi very long, the 3rd joint of palpi curved and pointing forwards at extremity; antennæ with the sinus and ridge of scales very large; the shaft with fasciculate cilia; hind tibiæ thickly fringed with hair and with a tuft of long hair from base.*

4409. **Phycita defiguralis**, *Wlk. Cat.* xxvii, p. 83.
Cabragus auritipalpus, *Moore, Lep. Ceyl.* iii, p. 371, pl. 184, fig. 9; *Rag. Mon. Phyc.* p. 442, pl. xiii, fig. 23; *C. & S.* no. 4611.
Sigmarthria palpella, *Rag. Nouv. Gen.* p. 23.

♂. Head and thorax fuscous black; maxillary palpi ochreous; abdomen ochreous. Fore wing with the base chestnut; an oblique

Fig. 57.—*Phycita defiguralis*, ♂. 1/1.

grey antemedial band, with whitish outer edge and diffused purplish fuscous beyond it, widest at costa; the rest of the wing greyish; two dark discocellular specks; a dark patch on apical part of costa; a grey submarginal line defined by brown, bent outwards and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing fuscous.

♀ with the vertex of head pink; the thorax purplish; the hind wing semihyaline and almost white.

*Hab.* Nilgiris; Ceylon; Borneo. *Exp.* 22 millim.

## Genus RHODOPHÆA.

Rhodophæa, *Guen. Eur. Microlep. Ind. Meth.* p. 74 (1845).
Eurhodope, *Hübn. Verz.* p. 371 (? 1818), non descr.
Acrobasis, *Zell. Isis*, 1848, p. 606.
Aurana, *Wlk. Cat.* xxvii, p. 122 (1863).
Succadana, *Rag. Nouv. Gen. Phyc.* p. 13 (1888).
Mineola, *Hulst, Trans. Am. Ent. Soc.* 1890, p. 126.
Ancova, *Rag. Mon. Phyc.* p. 149 (1894).

Type, *R. advenella*, Zinck., from Europe.

*Range.* Universally distributed.

Palpi upturned, the 2nd joint hardly reaching vertex of head, the 3rd acuminate; maxillary palpi filiform. Fore wing subtriangular; vein 3 from near angle of cell; 4, 5 from angle; 10 free. Hind wing with vein 2 from well before angle of cell; 3 from angle; 4, 5 stalked; 6, 7 from upper angle or shortly stalked, 7 anastomosing with 8.

SECT. I. Antennæ of male with the basal joint conically dilated with scales, the basal part of shaft with a sinus and a ridge of scales.

4410. **Rhodophæa heringi**, *Rag. Ann. Soc. Ent. Fr.* 1888, p. 282; *id. Mon. Phyc.* p. 73, pl. viii, fig. 1; *C. & S.* no. 4562.

Brown suffused with white; palpi at sides, the dilated joints of antennæ of male, and anal tuft blackish. Fore wing with the costal area whiter, the inner and outer areas less suffused; a tuft of raised scales on base of median nervure; a medial line oblique from costa to cell, where it joins a brown-edged and brown-centred grey conical patch extending to inner margin with a ridge of raised scales on its inner edge; two dark discocellular specks; a dark submarginal line slightly bent outwards at vein 5, then minutely dentate, a dark mark beyond it from costa to vein 6; an obscure marginal series of dark specks. Hind wing pale fuscous brown, with darker marginal line.

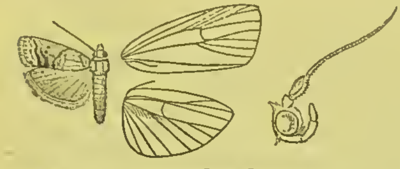

Fig. 58.—*Rhodophæa heringi*, ♂. 1/1.

*Hab.* Nilgiris; Ceylon. *Exp.* 18–22 millim.

SECT. II. Antennæ of male with the basal joint strongly dilated and indented on hinder side near the apex; the base of shaft deeply excised; frons hollowed out; palpi with the 3rd joint short and blunt.

4411. **Rhodophæa ligeralis**, *Wlk. Cat.* xxvii, p. 37; *C. & S.* no. 4563.

♂. Grey suffused with brown and purple; palpi fuscous, the end of second joint white; frons and vertex of head white. Fore wing with the basal area greyish and irrorated with a few black scales, the medial area purplish brown; a deep black medial line, slightly curved from costa to vein 1, then bent outwards, with purplish inside it expanding into a large patch on inner area; a deep black submarginal line excurved between veins 6 and 2, bent outwards to inner margin and with an indistinct purplish line beyond it; a deep black marginal line. Hind wing pale brownish and iridescent, the costa browner; a dark marginal line and line through the cilia.

*Hab.* Ceylon. *Exp.* 20–22 millim.

SECT. III. (*Acrobasis*). Antennæ of male with a tooth on inner side of basal joint.

*4412. **Rhodophæa epigrammella**, *Rag. Mon. Phyc.* p. 122, pl. vi, fig. 9.

♂. Grey-brown. Fore wing with a large brown-irrorated white triangular patch on basal part of costa, its apex on inner margin,

with the dark antemedial line of raised scales on its outer edge; a similar larger dark-edged postmedial patch including the two prominent black discocellular spots; the postmedial line pale with dark edges, very slightly sinuous and arising from a dark costal oblique spot; outer area whitish, with interrupted dark marginal line. Hind wing brownish grey, with dark marginal line.

*Hab.* Rangoon. *Exp.* 16 millim.

Sect. IV. (*Ancova*). Antennæ of male with long cilia.

4413. **Rhodophæa meridionalis**, *Wlk. Cat.* xxvii, p. 64; *Rag. Mon. Phyc.* p. 150, pl. xli, fig. 7; *C. & S.* no. 4568.

♂. Head, thorax, and abdomen pale olive-brown slightly irrorated with fuscous. Fore wing pale olive-brown irrorated with fuscous; some ferruginous suffusion between vein 1 and median nervure; a patch of ferruginous scales in end of cell; a black discocellular lunule with an oblique line from it to costa; a black postmedial line excurved between veins 5 and 2, some rufous scales inside it, and a rufous line beyond it bent outwards to costa; a prominent marginal series of dark specks. Hind wing iridescent yellowish white; a dark marginal line and a line through the cilia. Underside with the basal half of fore wing and basal half of costa of hind wing bright ferruginous.

♀. More olive-green; fore wing with no ferruginous suffusion on upper or under sides, and with purplish patches before the medial and postmedial lines.

*Hab.* Moulmein; Ceylon. *Exp.* 24 millim.

Sect. V. (*Rhodophæa*). Antennæ of male normal and slightly ciliated.

4414. **Rhodophæa duplicella**, *Rag. Bull. Soc. Ent. Fr.* 1890, p. ccxiii; *id. Mon. Phyc.* p. 79, pl. v, fig. 18.

♂. Black-brown; abdomen pale fuscous. Fore wing with the base blackish; an oblique silvery-grey antemedial band broad at costa, a grey spot on its inner edge on vein 1, and a yellow band on its outer edge from cell to inner margin; a silvery-grey triangular postmedial patch on costa embracing the two black discocellular specks; an indistinct sinuous grey submarginal line and slight grey marks on the margin.

*Hab.* Shán States. *Exp.* 16 millim.

4415. **Rhodophæa actiosella**, *Wlk. Cat.* xxvii, p. 122; *Rag. Mon. Phyc.* p. 68, pl. vi. fig. 8; *C. & S.* no. 4558.
Nephopteryx lentalis, *Swinh. P. Z. S.* 1885, p. 877, pl. 57, fig. 18.

Greyish brown; palpi with the 2nd joint grey banded with brown. Fore wing with oblique triangular subbasal pink-speckled white patch tapering to its apex on inner margin; a semicircular

pink-speckled white patch on costa from before middle to near apex with the two discocellular specks on it, the space between it and subbasal patch and also beyond it darker than the ground-colour; a dark-edged white submarginal line slightly excurved between veins 6 and 2; the margin suffused with white, with a marginal series of dark specks. Hind wing pale, suffused with fuscous towards outer margin and with a dark marginal line.

*Hab.* W. Africa; Nágas; Karáchi; Bombay; Ceylon. *Exp.* 18 millim.

4416. **Rhodophæa tenebralis**, n. sp.

♀. Fuscous brown irrorated with grey. Fore wing with the cell and disk suffused with grey; the medial dark line erect, interrupted in cell and below median nervure; an obscure grey patch with brown spot on it inside the line on inner area; two very prominent dark discocellular spots; a minutely dentate dark postmedial line excurved between veins 6 and 2 and with dentate grey line on its outer edge; a marginal series of dark specks. Hind wing uniform semihyaline brown.

*Hab.* Sikhim (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

4417. **Rhodophæa rufimarginella**, n. sp.

♀. Head ochreous, the palpi pink at base; collar purple; thorax dark brown. Fore wing very dark red-brown; the basal area suffused with purple; an indistinct pale submarginal line joined at outer angle to the bright red marginal band; cilia brown. Hind wing pale semihyaline brown; the veins and margin dark; a pale line at base of cilia; vein 7 becoming coincident with 8.

*Hab.* Bhután (*Dudgeon*). *Exp.* 14 millim. Type in B. M.

## Genus **SPATULIPALPIA**.

Spatulipalpia, *Rag. Mon. Phyc.* p. 19 (1894).

Type, *S. effosella*, Rag.

*Range.* N.E. and S. India; Burma; Ceylon.

Palpi upturned, male usually with the 2nd and 3rd joints, or the 3rd joint only, fringed on both sides with long curved scales, which form a large hollow on inner side; vertex of head usually with a large and deep hollow; antennæ usually with the basal joint dilated and hollowed out, the shaft thickened and flattened; anal tuft large; female with the palpi, vertex of head, and antennæ normal. Fore wing with vein 3 from near angle of cell; 4, 5 closely approximated for a short distance; 10, 11 free. Hind wing long, the apex acute; the cell extremely short, hardly one-fifth of wing; veins 3, 4, 5 from angle; 6, 7 on a long stalk, 7 anastomosing strongly with 8.

SECT. I. Palpi of male with the 2nd joint triangular, immensely dilated with curved scales and hardly reaching vertex of head, the 3rd invisible; maxillary palpi with a tuft of long scales from extremity; antennæ with broad laminæ, the shaft not excised; mid tibiæ not dilated; fore wing of moderate breadth, with no costal fold and flap of scales.

4418. **Spatulipalpia effosella**, *Rag. Mon. Phyc.* p. 20, pl. xviii, fig. 2.

♂. Ochreous brown irrorated with red-brown and fuscous. Fore wing irrorated chiefly on the veins; the costal area white irrorated with brown, widest at middle and tapering to base and apex; a black streak at lower angle of cell. Hind wing yellowish grey and semihyaline; the cilia whitish.

*Hab.* Upper Assam; Tenasserim. *Exp.* 21 millim.

SECT. II. Palpi of male with the 2nd joint cylindrical and reaching vertex of head, the 3rd fringed with long curved scales forming a hollow; maxillary palpi minute and filiform; antennæ with the shaft excised near base behind, then thickened by a ridge of scales behind and with a tooth of scales in front; mid tibiæ immensely dilated with a fold containing a tuft of long hair, the extremity with tuft on outer side; fore wing very narrow, with a large fold at base of costa on upperside and a fan of scales covering the end of the cell.

4419. **Spatulipalpia flabellifera**, n. sp.

Red-brown irrorated with ochreous and fuscous; head variegated with white, the hollow on vertex black, the fringe on 3rd joint of

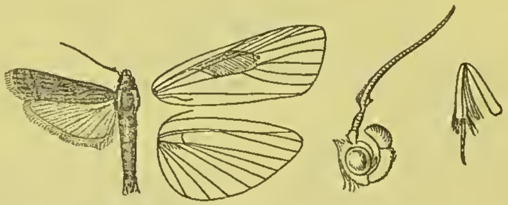

Fig. 59.—*Spatulipalpia flabellifera*, ♂. $\frac{3}{2}$.

palpi edged with black and the hollow black; anal tuft ochreous white. Fore wing with the ochreous scales forming pale streaks; a prominent black streak in end of cell and slight streaks in the interspaces below and beyond end of cell; traces of a pale submarginal line; a marginal series of black specks. Hind wing very pale fuscous and semihyaline.

*Hab.* Ceylon (*Green*). *Exp.* 20 millim. Type in B. M.

SECT. III. Palpi of male with the 2nd joint fringed with hair in front, the 2nd and 3rd joints not fringed with curved scales; frons with a tuft of rough hair; vertex of head not hollowed out; antennæ with the basal joint not dilated, the shaft thickened and flattened but without ridge of scales.

4420. **Spatulipalpia pallicostalis**, *Wlk. Cat.* xxvii, p. 63; *Rag. Mon. Phyc.* p. 18, pl. xli, fig. 1; *C. & S.* no. 4557.

Red-brown irrorated with white; head whitish. Fore wing with the costal area white irrorated with brown and broadening from base to apex; a white spot in cell and discocellular spot; an oblique postmedial series of white specks; cilia whitish. Hind wing pale semihyaline, with marginal fuscous line.

*Hab.* Coimbatore; Ceylon. *Exp.* 22 millim.

4421. **Spatulipalpia erythrina**, n. sp.

♂. Head and thorax dark red-brown; abdomen pale rufous. Fore wing purplish red-brown; a sinuous medial line with fuscous mark on its inner edge below costa, the inner area beyond it paler; a dark postmedial line slightly bent outwards at vein 5. Hind wing pale tinged with ferruginous red, especially on inner area; the veins and cilia ferruginous red.

*Hab.* Calcutta (*Atkinson*). *Exp.* 14 millim. Type in B. M.

## Genus CEROPREPES.

Ceroprepes, *Zell. Stettin. ent. Zeit.* 1867, p. 401.

Type, *C. patriciella*, Zell.

*Range.* Amur; Himalayas.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi filiform; frons rounded; antennæ of male with uniseriate branches, the basal joint long and much thickened at extremity, the base of shaft thickened by a ridge of scales on upperside. Fore wing with a ridge of raised scales before the antemedial line; vein 3 from close to angle of cell; 4, 5 from angle; 10 approximated to 8, 9. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 shortly stalked, 7 anastomosing with 8; the cell short.

4422. **Ceroprepes patriciella**, *Zell. Stettin. ent. Zeit.* 1867, p. 401, pl. ii, figs. 4 *a, b*; *Rag. Mon. Phyc.* p. 9, pl. iv, fig. 2; *C. & S.* no 4554.

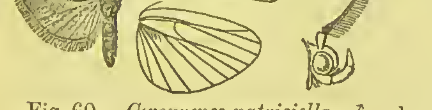

Fig. 60.—*Ceroprepes patriciella*, ♂. ½.

♂. Head, thorax, and abdomen reddish ochreous, with slight fuscous markings. Fore wing purplish rufous suffused with fuscous; the costa rufous; an indistinct pale sinuous medial line, with olive band inside it, white patch on costa, and tufts

of raised black scales from cell to inner margin; a slight dark spot in cell and discocellular lunule; an indistinct minutely waved postmedial line angled inwards on vein 7, excurved between veins 6 and 3, and terminating in a white spot. Hind wing uniform pale fuscous and semihyaline.

♀ with less prominent olive band inside the medial line of fore wing.

*Hab.* Sikhim. *Exp.*, ♂ 24, ♀ 26 millim.

4423. **Ceroprepes pulvillella,** *Zell. Stettin. ent. Zeit.* 1867, p. 394, pl. ii, fig. 3; *Rag. Mon. Phyc.* p. 11, pl. iv, fig. 1; *C. & S.* no. 4555.

♂. Head, thorax, and abdomen rufous brown, the thorax suffused with fuscous. Fore wing rufous brown; the basal area to near middle purplish black, with brown streak below median nervure; large antemedial tufts of raised black scales from cell to inner margin; traces of a sinuous medial line with olive band inside it, and of a minutely dentate and curved submarginal line; traces of a discocellular lunule and of slight streaks on the veins beyond cell; a marginal series of dark specks. Hind wing uniform pale semihyaline brown.

♀ with the suffusion on thorax and basal area of fore wing pale fuscous; a pale fascia on inner area of fore wing beyond the postmedial line; the patches of raised scales olive.

*Hab.* Sikhim. *Exp.* 28–30 millim.

4424. **Ceroprepes ophthalmicella,** *Chr. Bull. Soc. Nat. Mosc.* lvi, 1, p. 49; *Rag. Mon. Phyc.* p. 10, pl. iv, fig. 3.

♀. Brown irrorated with grey. Fore wing with conical dark-edged antemedial brown stigma from subcostals to inner margin, its apex bent inwards and traversed by a line, and with a ridge of raised black scales on its inner edge; an indistinct discocellular lunule; a minutely dentate postmedial line angled at vein 4; a marginal series of black specks. Hind wing pale brown and semihyaline.

*Hab.* Amur; Murree. *Exp.* 23–28 millim.

## Genus **CRYPTOBLABES.**

Cryptoblabes, *Zell. Isis*, 1848, p. 644.

Type, *C. bistriga*, Haw., from Europe.

*Range.* Palæarctic, Oriental, and Australian regions.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed; maxillary palpi filiform; frons rounded; antennæ with the basal joint rather large, a slight tooth of scales on base of shaft. Fore wing with vein 3 from before angle of cell; 4, 5 from angle or shortly stalked; 10, 11 free. Hind wing with the cell nearly half the length of wing; vein 3 from near angle; 4, 5 from angle; 6, 7 stalked, 7 strongly anastomosing with 8.

SECT. I. Palpi of male not dilated with scales towards extremity; mid tibiæ not dilated.

4425. **Cryptoblabes augustipennella**, *Rag. Nouv. Gen.* p. 6; *id. Mon. Phyc.* p. 16, pl. v, fig. 3; *C. & S.* no. 4556.

Grey thickly irrorated with fuscous. Fore wing narrow, with a few crimson scales on base of costal and inner margins; an oblique pale antemedial line with fuscous band on its outer edge; dark specks at the two angles of cell; an oblique pale minutely dentate submarginal line, angled inwards on vein 5 and its inner edge defined by fuscous; a marginal series of dark specks. Hind wing pale and semihyaline; the marginal area tinged with fuscous.

*Hab.* Dharmsála; Ceylon. *Exp.* 20 millim.

4426. **Cryptoblabes bipunctalis**, n. sp.

♂. Pale grey-brown with slight purplish tinge; palpi yellow. Fore wing with the antemedial line represented by fuscous specks in the cell and on vein 1; two very prominent black discocellular spots; a marginal series of black specks. Hind wing semihyaline, the veins and margin brown.

*Hab.* Bhután (*Dudgeon*). *Exp.* 18 millim. Type in B. M.

4427. **Cryptoblabes proleucella**, n. sp.

♀. Grey-brown; palpi blackish towards extremity. Fore wing with the costal area whitish; two prominent dark discocellular spots; an oblique dark submarginal line outwardly defined by grey and very slightly bent outwards at vein 5; a marginal series of black specks. Hind wing paler.

*Hab.* Ceylon (*Green*). *Exp.* 20–22 millim. Type in B. M.

SECT. II. Palpi of male broadly dilated with scales at extremity; mid tibiæ dilated, with a fold containing a tuft of long hair.

4428. **Cryptoblabes dissolutella**, *Snell. Midd.-Sum., Lep.* p. 81 *Rag. Mon. Phyc.* p. 19, pl. iv, fig. 5.

♂. Head vinous red, the scales at end of palpi purplish; thorax and abdomen yellowish brown. Fore wing pale yellowish brown, the costal half suffused with silvery grey and irrorated with pink scales; a few grey scales representing a submarginal line; a marginal dark line; the cilia pinkish, with a grey line through them. Hind wing hyaline; the veins and a marginal line brown.

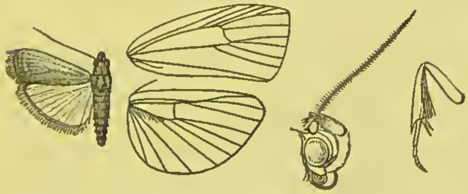

Fig. 61.—*Cryptoblabes dissolutella*, ♂. $\frac{1}{1}$.

*Hab.* Nágas; Celebes. *Exp.* 24 millim.

## Genus THIALLELA.

Thiallela, *Wlk. Cat.* xxvii, p. 120 (1863).
Leuconia, *Rag. Nouv. Gen.* p. 7 (1888).

Type, *T. signifera*, Wlk.
*Range.* Assam; Borneo.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi filiform; antennæ of male ciliated; hind tibiæ with tufts of hair from base and at extremity. Fore wing with veins 4, 5 well separated; 10 free; no antemedial ridge of scales. Hind wing with vein 3 from near angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

4429. **Thiallela signifera**, *Wlk. Cat.* xxvii, p. 120.
Leuconia pallidobasella, *Rag. Nouv. Gen.* p. 7; *id. Mon. Phyc.* p. 1, pl. xiii, fig. 1.

Head, thorax, and abdomen brown suffused with grey; antennæ of male black. Fore wing yellow-brown; the basal area suffused with grey and irrorated with a few black scales; a sinuous black medial line, the area on its inner side and beyond it chiefly yellow-brown, with a grey patch in end of cell, and another beyond the cell extending to the costa and apex; a black discocellular speck and blackish patch beyond lower angle of cell; a submarginal black line excurved between veins 6 and 2; a marginal black line. Hind wing pale fuscous brown; the cilia grey, with a fuscous line through them.

Fig. 62.—*Thiallela signifera*, ♂. ½.

*Hab.* Nágas; Borneo. *Exp.* 24 millim.

## Genus TEPHRIS.

Tephris, *Rag. Mon. Phyc.* p. 446 (1893).
Caina, *Rag. Mon. Phyc.* p. 463.

Type, *T. cyriella*, Ersch., from Central Asia.
*Range.* Transcaucasus; Persia; Central Asia; W. India; Burma.

Palpi obliquely upturned, the 2nd joint hollowed out in male to contain the brush-like maxillary palpi, the 3rd joint short and porrect; frons with a conical tuft; antennæ of male with a slight sinus at base containing a large ridge of scales; tibiæ thickly scaled. Fore wing long and narrow; vein 3 from near angle of cell; 4, 5 approximated for a short distance; 10 free. Hind wing with the cell short; vein 2 from near angle; 3, 4, 5 stalked; 6, 7 stalked.

SECT. I. (*Caina*). Antennæ of male thickened and laminate; hind wing with vein 7 anastomosing with 8.

4430. **Tephris inanitella**, *Rag. Nouv. Gen.* p. 25; *id. Mon. Phyc.* p. 464, pl. xlvii, fig. 7; *C. & S.* no. 4599.
Caina micrella, *Rag. Mon. Phyc.* p. 467, pl. vi, fig. 25.
Caina deletella, *Rag. Mon. Phyc.* p. 467, pl. xxvi, fig. 6.
Caina ciniferella, *Rag. Mon. Phyc.* p. 467, pl. xviii, fig. 12.

Head, thorax, and abdomen greyish white. Fore wing greyish white irrorated with fuscous; the inner area usually with very slight ochreous tinge; more or less developed medial black specks on median nervure and vein 1, two discocellular specks, and a marginal series of specks. Hind wing semihyaline white, with pale brown marginal line. Underside of fore wing in male with a black streak below basal half of costa and another below vein 12.

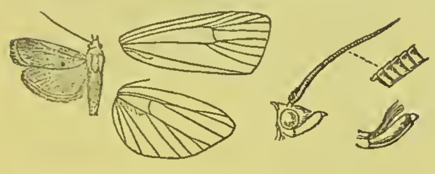

Fig. 63.—*Tephris inanitella*, ♂. 1/1.

*Hab.* Fao, Persian Gulf; Punjab; Sind; Bombay; Poona. *Exp.* 22 millim.

SECT. II. (*Tephris*). Antennæ of male ciliated; hind wing with vein 8 free.

*4431. **Tephris connexella**, *Rag. Mon. Phyc.* p. 449, pl. xvii, fig. 19.

♀. Head and thorax grey and black; abdomen brown suffused with black. Fore wing grey, irregularly irrorated with black; the basal area darkest; an oblique black-edged pale antemedial line with a black-irrorated whitish triangular patch beyond it, narrow at costa, broad at inner margin; a discocellular black lunule; a pale black-edged sinuous submarginal line, with an oblique line from it to lower angle of cell; a marginal line. Hind wing pale semihyaline white tinged with brown: two fine marginal lines.
*Hab.* Hyderabad, Sind. *Exp.* 21 millim.

*4432. **Tephris perlucidella**, *Rag. Mon. Phyc.* p. 450, pl. xvii, fig. 18.

♀. Head and thorax grey irrorated with black; abdomen browner. Fore wing grey strongly irrorated with black, especially beyond the antemedial line, which is whitish, indistinct, very irregular, not reaching the costa, and broken by a waved black line formed of raised scales; a submarginal minutely waved pale line slightly defined by fuscous; a marginal series of specks; cilia grey, with three fuscous lines. Hind wing semihyaline iridescent white, with two marginal brown lines.
*Hab.* Hyderabad, Sind. *Exp.* 23 millim.

*4433. **Tephris ephippella**, *Rag. Bull. Soc. Ent. Fr.* 1890, p. ccxiii; *id. Mon. Phyc.* p. 450, pl. vi, fig. 17.

♂. Head and thorax ochreous; abdomen irrorated with black. Fore wing steel-grey; the basal area suffused with black; the veins paler; the inner area darker; a pale antemedial line, oblique towards costa, angled on vein 1, where there is a reddish-brown patch; a pale postmedial oblique line defined by fuscous, toothed at vein 5 and with a black patch on costa beyond it; an irregular black line on median nervure and two black discocellular specks; a marginal series of specks. Hind wing semihyaline iridescent white; the costa blackish; a blackish marginal line and line through the cilia. Underside of fore wing with a streak of black scales below base of costa.

*Hab.* Shán States. *Exp.* 24 millim.

## Genus ETIELLA.

Etiella, *Zell. Isis*, 1846, p. 733.
Mella, *Wlk. Cat.* xix, p. 1017 (1859).
Assara, *Wlk. Cat.* xxvii, p. 79 (1863).
Modiana, *Wlk. Cat.* xxvii, p. 82.
Alata, *Wlk. Cat.* xxvii, p. 108.
Arucha, *Wlk. Cat.* xxvii, p. 201.

Type, *E. zinckenella*, Treit.

*Range.* Universally distributed.

Palpi porrect, thickly scaled, and extending about twice the length of head, the 2nd joint in male hollowed out and containing the brush-like maxillary palpi; frons with a conical prominence; antennæ of male with a sinus at base containing a thick ridge of large scales enclosing a hollow. Fore wing long and narrow; veins 2, 3, 4, 5 from close to angle of cell, but all well separated at origin; 10, 11 free. Hind wing with vein 2 from near angle of cell; 3 from angle; 6, 7 stalked, 7 anastomosing with 8.

Sect. I. Antennæ of male ciliated, the sinus and vesicular tuft of moderate size.

4434. **Etiella zinckenella**, *Treitschke, Schmett. Eur.* ix, 1, p. 201; *Rag Mon. Phyc.* p. 572; *C. & S.* no. 4601.
Phycis etiella, *Treitschke, Schmett. Eur.* x, 3, pp. 174, 276.
Chilo majorellus, *Costa, Faun. Nap.* no. 19, pl. 8, fig. 1, p. 3.
Chilo colonellus, *Costa, Faun. Nap.* no. 15, pl. 8, fig. 2, p. 7.
Mella dymnusalis, *Wlk. Cat.* xix, p. 1018.
Rhamphodes heraldella, *Guen. Maill. Faun. Isle de Réunion*, ii, G, p. 72.
Assara albicostalis, *Wlk. Cat.* xxvii, p. 108.
Modiana scitivittalis, *Wlk. Cat.* xxvii, p. 83.
Alata anticalis, *Wlk. Cat.* xxvii, p. 108.
Arucha indicatalis, *Wlk. Cat.* xxvii, p. 202.
Alata hastiferella, *Wlk. Cat.* xxxv, p. 1725.
Crambus sabulinus, *Butl. A. M. N. H.* (5) iv, p. 455.

Pempelia spartiella, *Rond. Bull. Soc. Ent. Ital.* 1876, p. 19, pl. i, figs. 1–15.
Etiella madagascariensis, *Saalm. Ber. Senck. Ges.* 1879–80, p. 307.
Etiella decipiens, *Staud. Berl. ent. Zeit.* 1870, p. 195.

Head, thorax, and abdomen pale rufous or purplish brown. Fore wing with a white costal fascia, with a grey-brown streak on costa from before middle to near apex; the rest of the wing grey-brown usually suffused with rufous, especially at base and below the costal fascia; an antemedial yellow-brown band with a ridge of raised red scales on its inner edge and a greyish patch before it; traces of a minutely dentate submarginal line and marginal series of specks. Hind wing semihyaline; the veins, apical area, a marginal line, and a line through the cilia brown.

*Larva* apple-green, with a broad red-brown dorsal band; head yellow, with a brown line behind it; prothorax with two pairs of depressed black spots and a lateral pair with reddish patches behind them; the other somites with black specks, the dorsal specks on white patches and with pale hairs rising from them. It lives in slender silken tubes in the pods of *Colutea, Phaseolus*, etc., and in India is destructive to the Bombay Hemp, *Crotolaria juncea.*

*Hab.* Universally distributed. *Exp.* 18–30 millim.

SECT. II. Antennæ of male with uniseriate branches for two-thirds length, the sinus and vesicular tuft very large.

4435. **Etiella venustella**, n. sp.

♂. Head, thorax, and abdomen ochreous suffused with fuscous. Fore wing slate-grey, with a large olive-yellow patch in, below, and beyond end of cell, crossed by a slightly sinuous pale medial line with a prominent black spot inside it below the cell; a slight ridge of raised scales at origin of vein 2; the grey area bounded

Fig. 64.—*Etiella venustella*, ♂. 1/1.

by a minutely dentate whitish submarginal line; the outer area rufous, with a submarginal series of black marks largest towards apex and with a pale line on their outer edge; cilia fuscous, with a grey line at base. Hind wing pale semihyaline fuscous brown.

*Hab.* Bhután (*Dudgeon*); Nágas (*Doherty*). *Exp.* 24 millim. Type in coll. Elwes.

## Subfamily EPIPASCHIINÆ.

Proboscis present; palpi almost always upturned, and in males often with the 2nd joint hollowed out to receive the brush-like maxillary palpi, which are sometimes bilobed; antennæ of male usually with a more or less developed thickly-scaled flagellate process from basal joint extending backwards over the thorax. Fore wing with tufts of raised scales below the cell and on discocellulars; veins 7, 8, 9 stalked. Hind wing with the median nervure non-pectinate; vein 8 usually free.

The larvæ of several species live in colonies in webs and form social cocoons.

*Key to the Genera.*

| | |
|---|---|
| A. Hind wing with vein 7 anastomosing with 8. | |
| *a*. Both wings with veins 4, 5 approximated for a short distance . . . . . . . . . . . . . . . | 2. Lepidogma, p. 111. |
| *b*. Both wings with veins 4, 5 stalked . . . . | 1. Parorthaga, p. 110. |
| B. Hind wing with vein 8 free. | |
| *a*. Fore and hind wings with veins 4, 5 approximated for about one-third length . . . . . . . . . . . . . . . . . . . . . . . | 3. Macalla, p. 112. |
| *b*. Fore and hind wings with veins 4, 5 radiating from angle of cell. | |
| *a′*. Palpi with the 2nd joint reaching well above vertex of head . . . . . . . . | 6. Stericta, p. 120. |
| *b′*. Palpi with the 2nd joint hardly reaching vertex of head. | |
| *a²*. Fore wing without antemedial ridge of hair; antennæ of male non-pectinate. | |
| *a³*. Tibiæ nearly smoothly scaled . . | 7. Orthaga, p. 124. |
| *b³*. Tibiæ fringed with long hair . . | 5. Locastra, p. 118. |
| *b²*. Fore wing with antemedial ridge of hair; antennæ of male pectinate . . . . . . . . . . . . . . . . . . . . . . . | 4. Cœnodomus, p. 116. |

### Genus PARORTHAGA, nov.

Type, *P. euryptera*, Meyr.

*Range*. Japan; Bhután; Ceylon; Sumbawa; Australia.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed; maxillary palpi filiform; frons rounded; antennæ of male fasciculate; tibiæ slightly hairy. Fore wing with vein 3 approximated for a short distance to 4, 5, which are stalked; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free; male with a glandular swelling on çosta beyond middle. Hind wing with vein 3 from angle of cell; 4, 5 stalked; 6, 7 from upper angle, 7 anastomosing with 8.

4436. **Parorthaga euryptera**, *Meyr. Trans. Ent. Soc.* 1894, p. 476.

Grey slightly suffused with olive-brown or green; male with the anal tuft fuscous. Fore wing slightly irrorated with fuscous and with rather indistinct sinuous medial and postmedial waved lines; the outer area fuscous brown almost to the postmedial line. Hind wing whitish or pale fuscous, with indistinct curved postmedial line and the outer area suffused with fuscous.

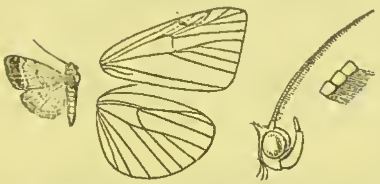

Fig. 65.—*Parorthaga euryptera*, ♂. 1/1.

*Hab.* Japan; Bhután; Ceylon; Sumbawa. *Exp.* 18 millim.

## Genus **LEPIDOGMA.**

Lepidogma, *Meyr. Trans. Ent. Soc.* 1890, p. 472.

Type, *L. tamaricialis*, Mann., from the Mediterranean subregion.
*Range.* Southern Europe; Central Asia; Bhután; Sind.
Palpi upturned, the 2nd joint reaching vertex of head, the 3rd of moderate length; maxillary palpi minute; antennæ of male fasciculate, with a large tuft of scales from apex of basal joint; mid and hind tibiæ with the outer terminal spur short. Fore wing narrow, the costa straight; vein 3 from angle of cell; 4 and 5 approximated for one-third length; 7, 8 stalked; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4 and 5 approximated for half their length; 6, 7 on a short stalk, 7 anastomosing with 8.

Sect. I. Fore wing with vein 9 coincident with 8.

4437. **Lepidogma obatralis**, *Christ. Hor. Ent. Ross.* 1876, xii, p. 264, pl. 7, fig. 36.
Hypotia vafera, *Swinh. P. Z. S.* 1884, p. 523, pl. 48, fig. 8; *C. & S.* no. 4521.

Grey, suffused with brown and irrorated with black. Fore wing with black basal spot on costa and speck in base of cell; an antemedial white band slightly angled on median nervure; traces of a diffused dark oblique medial band from lower angle of cell to inner margin; a speck on discocellulars; a white postmedial line with dark inner edge and much bent outwards between veins 2 and 5. Hind wing white; the apical area fuscous; a white

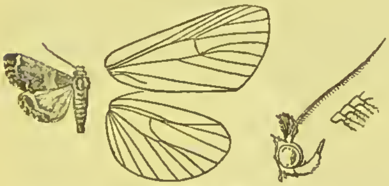

Fig. 66.—*Lepidogma obatralis*, ♂. 1/1.

postmedial line with dark inner edge bent outwards at vein 5 and obsolete below vein 2; cilia of both wings chequered white and black.

*Hab.* Krasnowvodsk, Siberia; Punjab; Karáchi. *Exp.*, ♂ 18, ♀ 24 millim.

SECT. II. Fore wing with vein 9 given off from 8.

4438. **Lepidogma rufescens**, n. sp.

♀. Head, thorax and abdomen pale rufous. Fore wing pale rufous irrorated with black scales; the discocellular tuft black; a broad diffused grey band beyond middle traversed by a minutely waved dark line; the outer area redder, with a marginal series of black specks. Hind wing pale rufous.

*Hab.* Bhután (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

## Genus **MACALLA**.

Macalla, *Wlk.* xvi, p. 155 (1858).
Lamida, *Wlk. Cat.* xvi, p. 252.
Allata, *Wlk. Cat.* xxvii, p. 110 (1863).
Epipaschia, *Clem. Proc. Nat. Sci. Phil.* 1860, p. 14.
Calinipaxa, *Wlk. Cat.* xxxiv, p. 1218 (1865).
Teliphasa, *Moore, Lep. Atk.* p. 200 (1888).
Parasarama, *Moore, A. M. N. H.* (6) vi, p. 474 (1890).
Orthotrichophora, *Warr. A. M. N. H.* (6) vii, p. 429 (1891).

Type, *M. thyrsisalis*, Wlk., from Honduras.

*Range.* Nearctic and Neotropical regions; Japan; Oriental and Australian regions.

Palpi upturned, in female the 2nd joint long and reaching above vertex of head, the 3rd long; tibiæ slightly hairy. Fore wing with the apex rectangular; veins 4, 5 closely approximated for one-third of their length; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from angle of cell; 4, 5 closely approximated for one-third length; 6, 7 from angle of cell or shortly stalked.

The typical species belongs to Sect. I., but has long processes from basal joints of antennæ.

SECT. I. (*Lamida*). Male with the 2nd joint of palpi short, the 3rd immensely dilated and curved over vertex of head, with a hollow containing the brush-like maxillary palpi; antennæ minutely ciliated, with a tuft of hair from the head behind them.

4439. **Macalla nubilalis**, *Hmpsn. Ill. Het.* ix, p. 157, pl. 172, fig. 9.

♀. Head, thorax, and abdomen pale rufous grey with a few black scales; patagia olive at base. Fore wing olive-green and grey; the costal area fuscous to middle; an oblique black antemedial line with a raised tuft of long scales on it; fan-shaped

tufts of long scales in end of cell and on discocellulars; a prominent diffused oblique black line across apex from costa to outer margin, with a dentate postmedial line excurved beyond cell arising from it; outer area suffused with brownish. Hind wing semihyaline; the apical area strongly suffused with fuscous, the inner area slightly suffused; cilia whitish at tips. Underside pale; the outer area and especially the apex of each wing fuscous.

*Hab.* S. India; Ceylon. *Exp.* 32 millim.

4440. **Macalla moncusalis**, *Wlk. Cat.* xvi, p. 252; *C. & S.* no. 2942.
Allata penicillata, *Wlk. Cat.* xxvii, p. 111; *C. & S.* no. 4640.
Orthaga obscura, *Moore, Lep. Atk.* p. 201; *C. & S.* no. 4490.
Pseudolocastra inimica, *Snell. Trans. Ent. Soc.* 1890, p. 566 (*nec Butl.*).

♂. Dark fuscous. Fore wing with traces of dentate antemedial line angled in the cell; the fan of scales in end of cell grey; a black discocellular speck; an obscure dentate postmedial line highly angled at vein 4 and with diffused grey on its outer edge. Underside of hind wing with traces of discocellular lunule and minutely dentate postmedial line excurved from vein 6 to 2.

♀ paler and more olive-green.

*Hab.* Sikhim; Bhután; Nágas; Manipur. *Exp.*, ♂ 26, ♀ 26–32 millim.

4441. **Macalla syrichtusalis**, *Wlk. Cat.* xvi, p. 165.

♂. Differs from *moncusalis* in the fore wing having a fringe of very long hair in cell and a fringe below costa from beyond middle to apex; darker olive-green with the markings hardly traceable. Hind wing dark fuscous with slight purplish reflections.

♀ with the fore wing variegated with ochreous as far as the postmedial line; the outer area purplish; the lines more prominent; a dark spot in cell and marginal series of spots. Hind wing purplish fuscous, with traces of sinuous line from beyond lower angle of cell to anal angle.

*Hab.* Sikhim; Nágas; Borneo. *Exp.* 30 millim.

4442. **Macalla albifusa**, n. sp.

♂. Head, thorax, and abdomen grey, suffused with olive and fuscous. Fore wing with the basal area olive-yellow and grey, with a few black scales on its outer edge; the medial area white irrorated with olive-yellow, with slight tufts of scales below cell and on discocellulars; a black discocellular spot; a postmedial irregular black band excurved between veins 6 and 2 and with a white spot beyond it on costa; the outer area olive suffused with black; a series of black specks on margin towards apex; cilia chequered with black. Hind wing white, with broad marginal fuscous band becoming obsolescent towards anal angle. Underside white; each wing with black cell-spot and diffused postmedial line with the area beyond it fuscous.

♀ with the postmedial line of fore wing dentate; the outer area irrorated with white scales. Hind wing with curved dark postmedial line bounding the pale area.

*Hab.* Sikhim (*Dudgeon*); Nágas (*Doherty*). *Exp.*, ♂ 34, ♀ 36 millim. Type in B. M.

Sect. II. (*Teliphasa*). Male with the maxillary palpi filiform; the 2nd joint of palpi short; the 3rd upturned, straight, reaching far above vertex of head and thickly clothed in front with downwardly directed hair; antennæ fasciculate, with a short hairy process from basal joint.

4443. **Macalla derogatella**, *Wlk. Cat.* xxvii, p. 30.
Teliphasa orbiculifer, *Moore, Lep. Atk.* p. 201; *C. & S.* no. 4481.
Teliphasa nubilosa, *Moore, Lep. Atk.* p. 201; *C. & S.* no. 4480.

Olive-green, thickly irrorated and suffused with black. Fore wing with a sinuous antemedial line, and indistinct minutely dentate postmedial line excurved between veins 5 and 2; the area between the two lines more olive, with a black spot in the cell and a lunule on discocellulars; outer area fuscous, with a slight rufous tinge; cilia rufous and black. Hind wing ochreous, more or less suffused with fuscous; traces of a curved postmedial line. Underside of each wing with prominent black cell-spot and postmedial line angled beyond cell; the basal area pale, on fore wing suffused with fuscous in the cell and between veins 2 and 5; outer area fuscous.

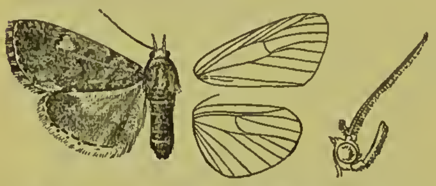

Fig. 67.—*Macalla derogatella*, ♂. 1/1.

The form *nubilosa* is much more suffused with fuscous than in the typical form and the hind wing is wholly suffused with fuscous except the costal area. One specimen has some white on thorax and a large patch in and below middle of cell of fore wing, and spot on discocellulars.

Another specimen is fuscous grey without any green tinge.

*Hab.* Dalhousie; Simla; Murree; Nágas; Sikhim; Borneo. *Exp.* 36 millim.

Sect. III. Palpi of male with a fringe of hair on 1st joint above, so that the palpi are thrown forward; the 2nd joint long, with fringe of down curved hair longest towards extremity; 3rd joint minute and porrect; basal joint of antennæ long, without process, the shaft arising at an angle.

4444. **Macalla scoporhyncha**, n. sp.

♂. Olive-green irrorated with black. Fore wing with black and white specks on costa; ill-defined black ante- and postmedial

lines, the former angled outwards below cell, the latter inwards and oblique; a black discocellular spot. Hind wing with indistinct dark curved postmedial line; both wings with marginal series of black specks.

*Hab.* Sikhim (*Pilcher*). *Exp.* 24 millim. Type in B. M.

SECT. IV. Male with the palpi similar to the female; antennæ somewhat thickened and minutely ciliated.

A. (Epipaschia). *Antennæ of male with a very long flagellate process from the basal joint recurved over thorax and fringed with long hair and scales below.*

4445. **Macalla validalis**, *Wlk. Cat.* xxxiv, p. 1218.
Scopocera minor, *Moore, Lep. Atk.* p. 203; *C. & S.* no. 4483.
Peucela fumosalis, *Warr. A. M. N. H.* (6) xvii, p. 461.

Golden olive, slightly irrorated with black scales. Fore wing with black marks on costa; an interrupted antemedial black line outwardly oblique from costa to vein 1; a prominent black spot at end of cell; a minutely dentate postmedial line excurved from vein 6 to 2; a marginal series of black specks; the cilia fuscous. Hind wing fuscous with a slight rufous tinge, and with traces of a curved postmedial line; a dark line through the cilia. Underside with minutely denticulate curved postmedial line.

One specimen has a large white patch on medial area of fore wing, and white patch on costa beyond the postmedial line.

*Hab.* Sikhim; Khásis; Nágas; Borneo. *Exp.* 22 millim.

B. (Parasarama). *Antennæ of male with no process from basal joint.*

4446. **Macalla dimidialis**, *Snell. Trans. Ent. Soc.* 1890, p. 568.

Pale grey; palpi fuscous. Fore wing with two red-brown spots on basal half of costa; the outer area red-brown, commencing from middle of costa obliquely to lower angle of cell; an indistinct postmedial line outlined with grey most strongly at costa and inner margin, bent outwards and minutely dentate between veins 6 and 2, then bent inwards and sinuous. Hind wing grey with a fuscous tinge, with faint traces of minutely dentate curved postmedial line.

*Hab.* Sikhim. *Exp.* 22 millim.

4447. **Macalla parvula**, n. sp.

♂. Head, thorax, and abdomen grey and fuscous, metathorax and first abdominal segment with paired dark tufts; anal tuft ochreous. Fore wing with the basal area olive-brown, bounded by a sinuous black line with white suffusion beyond it; the outer area fuscous brown; a black discocellular speck; the postmedial line blackish, oblique from costa to vein 4, then retracted to lower angle of cell and diffused to inner margin. Hind wing whitish,

with slight fuscous suffusion on apical and outer areas and an obscure diffused patch on vein 2.

*Hab.* Bhúj, Cutch (*Nurse*). *Exp.* 20 millim. Type in B. M.

4448. **Macalla exrufescens**, n. sp.

♂. Head, thorax, and abdomen grey with a reddish tinge and irrorated with black. Fore wing with the basal area pale reddish grey; a sinuous black antemedial line; the medial area grey thickly irrorated with black; tufts of black scales in end of cell and on discocellulars; a waved postmedial dark line incurved below vein 4, the area beyond it rufous; the margin and cilia with series of dark spots. Hind wing with the basal costal area white; the outer and inner areas fuscous and rufous; a rufous and fuscous lunule on vein 2, and series of dark spots on margin and cilia.

*Hab.* Sikhim. *Exp.* 38 millim. Type in B. M.

4449. **Macalla margarita**, *Butl. Ill. Het.* iii, p. 66, pl. 57, fig. 4.
Locastra lativitta, *Moore, Lep. Atk.* p. 199, pl. 7, fig. 1; *C. & S.* no. 4476.
Parasarama conjuncta, *Warr. A. M. N. H.* (6) xvii, p. 454.
Parasarama rufitinctalis, *Warr. A. M. N. H.* (6) xvii, p. 455.

Olive-green and pure white irrorated with a few black scales. Fore wing with the basal area olive-green widening to inner margin; a white spot on base of costa; the medial area white and in form of an irregular Y from having an olive blotch at middle of costa; an obscure minutely dentate postmedial line angled at vein 4, then incurved and again bent outwards near inner margin; the outer area olive, with a more or less developed submarginal series of white specks. Hind wing white, with indistinct minutely dentate postmedial line; a fuscous marginal band, broad at apex and narrowing to anal angle; cilia chequered with fuscous.

*Hab.* Japan; Sikhim; Khásis; Nilgiris; Borneo. *Exp.* 34 millim.

4450. **Macalla cuproviridalis**, *Moore, P. Z. S.* 1867, p. 87; *C. & S.* no. 4475.

Head and thorax olive-green; abdomen white and black. Fore wing with the basal area olive-green with a few white scales on it, and bounded by the antemedial black line which is bent outwards below the cell; the medial area white irrorated with olive-green and with the costa green; a prominent black spot in the cell and lunule at end of it; a dentate diffused postmedial line, with the area beyond it olive-green with diffused black patches on it; a marginal series of white specks. Hind wing pure white, with a broad fuscous marginal band narrowing to anal angle.

*Hab.* Sikhim. *Exp.* 42 millim.

## Genus **CŒNODOMUS.**

Cœnodomus, *Wlsm. Tr. Linn. Soc.* 1889, p. 49.
Alippa, *Aurivillius, Ent. Tids.* 1894, p. 176.

Type, *C. hockingii*, Wlsm.
*Range.* Punjab; Bengal; Himalayas; Nilgiris; Java.

Palpi upturned, thickly scaled, and hardly reaching vertex of head; the 2nd joint in male hollowed out to receive the brush-like maxillary palpi; antennæ of male bipectinated to two-thirds length with long branches decreasing distally, and with a process fringed with hair from basal joint; tibiæ and tarsal joints fringed with hair. Fore wing with the apex rounded; veins 3, 4, 5 from close to angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free; a large antemedial ridge of long hair from below the cell to inner margin and a tuft at upper angle. Hind wing with veins 3, 4, 5 from close to angle of cell; 6, 7 from upper angle; 8 free; tufts of long hair near lower angle of cell.

SECT. I. Antennæ of male with the process from basal joint short.

4451. **Cœnodomus hockingii**, *Wlsm. Trans. Linn. Soc., Zool.* v, 1889, p. 49, pl. 5; *C. & S.* no. 4504.
Alippa anomala, *Aurivillius, Ent. Tids.* 1894, p. 176.

Head, thorax, and abdomen clothed with grey, black, and rufous hair. Fore wing grey irrorated with fuscous brown, which is the prevailing colour on the costal and basal areas; the tufts of long hair rufous with black tips; a slightly curved antemedial line; a highly sinuous pale rufous postmedial band edged by black lines. Hind wing grey thickly irrorated with fuscous brown; the tufts near lower angle of cell rufous tipped with black; a pale rufous sinuous postmedial band edged by waved black lines.

Fig. 68.—*Cœnodomus hockingii*, ♂. $\frac{1}{1}$.

*Larva*. Yellowish white; head dark brown; 1st somite with a large chitinous dorsal plate marked with about twelve pale brown spots and two brown lateral stripes; 2nd and 3rd somites with five or six brown spots; the 4th, 5th, and 6th each with two pairs of spots; 7th to 11 somites fuscous brown. Food-plant, *Eugenia jambolana*, Lam. The larvæ are gregarious and live in strong tubes composed of two layers of silk with excrement between them, from three to fifteen in each colony; the tubes are open at each end and the larvæ emerge as far as the 6th somite from either end to feed; the colony is attached to its food-plant by silken threads, but is able to move about from one part of the plant to another.

*Hab.* Simla; Kángra; Sikhim; Calcutta; Vizagapatam; Java. *Exp.*, ♂ 35–40, ♀ 36–50 millim.

4452. **Cœnodomus rotundinidus**, *Hmpsn. Ill. Het.* viii, p. 127, pl. 154, fig. 16.

♀. Differs from *hockingii* in being much greyer and less irrorated with fuscous. Fore wing with the antemedial line

angled below the cell; both wings with a prominent lunulate rufous postmedial line, incurved below vein 3, before the postmedial band; a crenulate dark marginal line.

The larvæ feed on a tree of the Laurel tribe and turn to pupæ in a round ball, of about three inches diameter, made of the leaves and web spun together, about six larvæ to each colony.

*Hab.* Nilgiri plateau. *Exp.* 44 millim.

SECT. II. Antennæ of male with the process from basal joint reaching to end of metathorax.

4453. **Cœnodomus dudgeoni**, n. sp.

♂. Head, thorax, and abdomen ochreous and fuscous; wings leaden coloured. Fore wing with ill-defined sinuous black-edged white ante- and postmedial lines, the latter with some olive beyond it; the tufts of hair on basal area, discocellulars, and beyond the postmedial line blackish with a few white hairs. Hind wing with sinuous whitish postmedial line with olive patch beyond it at anal angle; tufts of black and white hair near base, end of cell, and beyond postmedial line.

*Hab.* Bhután (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

## Genus **LOCASTRA**.

Locastra, *Wlk. Cat.* xvi, p. 158 (1858).
Taurica, *Wlk. Cat.* xxxiv, p. 1268 (1865).

Type, *L. crassipennis*, Wlk.

*Range.* Brazil; China; N.E. India; Ceylon; Burma; Borneo.

Palpi upturned and reaching vertex of head, the 2nd joint in male fringed with long hair at base, 2nd and 3rd curved forward, in the female the 2nd joint is tufted with hair at extremity, the 3rd minute and upturned; maxillary palpi dilated with scales; antennæ of male minutely serrate and fasciculate; tibiæ and tarsi fringed with very long hair. Fore wing with vein 1*a* strong; 3, 4, 5 from angle of cell; 6 from below upper angle; 7, 8, 9 stalked; tufts of raised scales below middle of cell and on discocellulars. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle, 7 often connected with 8 by a bar, or in one specimen vein 8 is connected with the end of the cell by an additional vein showing the bar to be the remains of one of the lost subcostals; male with the inner area clothed with long hair on upper and under sides.

SECT. I. Antennæ of male with a process from basal joint; fore wing with a glandular costal lobe at two-thirds from base, with the subcostal nervules bent round it.

A. (Locastra). *Male with a very large recurved triangular process from basal joint of antennæ clothed with long rough scales; hind tibiæ extremely thickly clothed with rough curved scales to near extremity.*

4454. **Locastra crassipennis**, *Wlk. Cat.* xi, p. 558; *C. & S.* no. 1926.
Locastra maimonalis, *Wlk. Cat.* xvi, p. 159.

Head, thorax, abdomen, and fore wing clothed with olive-yellow, rufous, and fuscous scales, the last with rufous basal and discal

Fig. 69.—*Locastra crassipennis*, ♂. ½.

patches; dentate black ante- and postmedial lines, the latter highly excurved round end of cell; a black spot in end of cell; the outer area olive-yellow, with a marginal series of black striæ; the cilia rufous and fuscous. Hind wing of male pale with slight rufous tinge; of female fuscous brown.

*Hab.* Sylhet; Borneo. *Exp.*, ♂ 40, ♀ 50 millim.

B. (Taurica). *Male with the process on basal joint of antennæ much smaller; mid tibiæ clothed with long hair, but without the thick curved scales.*

4455. **Locastra muscosalis**, *Wlk. Cat.* xxxiv, p. 1269.
Taurica sikkima, *Moore, Lep. Atk.* p. 202; *C. & S.* no. 4482.
Locastra cristalis, *Hmpsn. Ill. Het.* ix, p. 157, pl. 172, fig. 24.

Differs from *crassipennis* in being rufous and fuscous, with a slight green tinge but no olive-yellow shades. Fore wing with the antemedial line straighter; no spot in end of cell; the postmedial line more bent inwards at vein 2. Hind wing fuscous in both sexes and with traces of a pale dentate postmedial line.

*Hab.* N. China; Sikhim; Nágas; Ceylon; Rangoon. *Exp.*, ♂ 38, ♀ 46 millim.

Sect. II. Male with no process from basal joint of antennæ or glandular lobe on costa of fore wing, a patch of thick brown scales on underside below cell; hind wing very broad, with a patch of thick brown scales in cell above; abdomen with the claspers very large and large paired genital tufts.

4456. **Locastra pachylepidalis**, n. sp.

♂. Head, thorax, and abdomen olive-green irrorated with white; patagia fringed with rufous hair; genital tufts rufous. Fore wing dark green, the medial area irrorated with white; some white scales at base; the outer area irrorated with black; two dark spots

in cell. Hind wing with the costal half dark purple-brown; a white streak below median nervure diffused beyond lower angle of cell; the inner area rufous.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

## Genus STERICTA.

Stericta, *Led. Wien. ent. Mon.* vii, p. 340 (1863).
Glossina, *Guen. Delt. & Pyr.* p. 124 (1854), præocc.
Craneophora, *Christ. Bull. Soc. Nat. Mosc.* 1881, lvi (1), p. 1.
Sarama, *Moore, Lep. Atk.* p. 203 (1888).
Belenopholis, *Butl. Ill. Het.* vii, p. 89 (1890).
Trichotophysa, *Warr. A. M. N. H.* (6) xvii, p. 457 (1896).

Type, *S. divitalis*, Guen.

*Range.* Nearctic, Neotropical, Oriental, and Australian regions.

Palpi upturned and smoothly scaled, the second joint reaching above vertex of head, the 3rd long; tibiæ slightly fringed with hair; hind tibiæ with a terminal tuft on outer side. Fore wing with the apex rounded; vein 3 from near angle of cell; 4, 5 from angle; 6 from or from above upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 on a short stalk.

SECT. I. Antennæ of male with a long flagellate process on 1st joint recurved over the thorax and fringed below with long scales. Palpi of male with the 2nd joint hollowed out to receive the brush-like maxillary palpi.

A. *Antennæ of male minutely ciliated.*

a. (Stericta). *Fore wing with slight tufts of scales below and beyond cell.*

4457. **Stericta divitalis**, *Guen. Delt. & Pyr.* p. 124, pl. 7, fig. 4; *C. & S.* no. 4473.
Locastra phereciusalis, *Wlk. Cat.* xvi, p. 159.

Head rufous; thorax green; abdomen suffused with rufous. Fore wing bright rufous irrorated with black; a yellowish-green basal patch with black specks on it and indistinct subbasal line; a black-edged green antemedial line angled above inner margin, the green being diffused outwards through the cell to the black-edged slightly-curved postmedial line and between veins 3 and 4 to the outer margin; two black specks in end of cell; a marginal series of black lunules. Hind wing reddish brown; cilia of both wings pink. Underside of hind wing with the basal half pale; a curved medial line.

*Hab.* Assam; Ceylon; Borneo. *Exp.* 35 millim.

4458. **Stericta rufescens**, n. sp.

♂. Pale and dark red-brown; antennal processes black at tips. Fore wing dark red-brown, with pale patches at base of costa

and apex; an indistinct sinuous antemedial line; black specks on median nervure, in cell, and on discocellulars; a postmedial black line excurved between veins 6 and 2; a marginal black line. Hind wing with submarginal black spot on vein 2; a pale patch at anal angle.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 24 millim. Type in B. M.

4459. **Stericta asopialis**, *Snell. Trans. Ent. Soc.* 1890, p. 568.

♂. Head and thorax black; abdomen pale brown, with the extremity black. Fore wing with the basal area black, with large tufts of raised scales; the medial area olive-green, with black discocellular spot and fuscous marks on costa; the outer area fuscous black, with waved inner edge. Hind wing with the inner area tinged with rufous; the costal and apical areas fuscous; a slight dark submarginal mark on vein 2; underside with curved postmedial line.

♀ with the black areas tinged with cupreous, especially the outer area of fore wing, which has a postmedial line angled on vein 4 and outlined with olive-green. Hind wing uniform fuscous, except for the mark on vein 2.

*Hab.* Sikhim; Bhután. *Exp.*, ♂ 20, ♀ 24 millim.

b. (Craneophora). *Fore wing with a ridge of long hair beyond cell and another below the cell; hind wing with ridge beyond cell and on inner area.*

4460. **Stericta haraldusalis**, *Wlk. Cat.* xvi, p. 160.

Craneophora ficki, *Christ. Bull. Soc. Nat. Mosc.* 1881, lvi (1), p. 2.

Scopocera variegata, *Moore, Lep. Atk.* p. 203, pl. 7, fig. 4; *C. & S.* no. 4486.

Belenopholis striata, *Butl. Ill. Het.* vii, p. 90, pl. 134, fig. 3.

Head, thorax, and abdomen ochreous irrorated with black; the anal tuft pink and yellow. Fore wing with the base and costa to beyond middle ochreous irrorated with black; the tuft at end of cell and the ridges consisting of black and white hair; an obliquely-curved antemedial line; the medial area pink, with an orange band below the cell; a postmedial curved black line with orange band beyond it; the outer area orange-red; the veins striped with black and white. Hind wing similar, but without the antemedial line; the outer area narrow, with traces of black and white streaks on the veins.

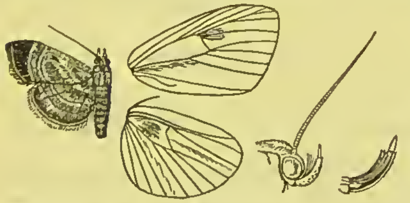

Fig. 70.—*Stericta haraldusalis*, ♂. 1/1.

*Hab.* Amur; Japan; Simla; Dharmsála; Kulu; Sikhim; Tenasserim; Borneo. *Exp.*, ♂ 24, ♀ 30 millim.

B. (Sarama). *Antennæ of male minutely serrate and fasciculate; palpi of female with a tuft of hair at extremity of 2nd joint on inside. Fore wing with two large tufts of scales below the cell and large tuft in and beyond the end; a ridge of scales below vein 2, and small tufts in the interspaces between veins 2 and 5.*

4461. **Stericta atkinsoni,** *Moore, Lep. Atk.* p. 204; *C. & S.* no. 4487.

Head and thorax yellowish olive, variegated with black and white. Fore wing yellowish olive, with more or less white on basal and postmedial areas; a black patch on basal costal area; two conjoined patches forming a diffused antemedial band; some black suffusion on disk; the tufts black aud white; an indistinct minutely dentate curved postmedial line; cilia chequered white and black. Hind wing white, with slight fuscous suffusion, which is strongest on apical area; a curved miuutely dentate postmedial line; a marginal black line; cilia white, with a few black specks.

*Hab.* Sikhim. *Exp.* 30 millim.

C. (Scopocera). *Antennæ of male thickened and flattened; fore wing with ridges of long hair beyond the cell below veins 2 and 6, and a shorter ridge above vein 6; hind wing with ridges below vein 6 and between lower angle of cell and anal angle.*

4462. **Stericta sinuosa,** *Moore, Lep. Atk.* p. 203, pl. 7, fig. 3; *C. & S.* no. 4485.

Olive-green suffused with golden rufous; abdomen banded with black. Fore wing with the area from base to postmedial line, except the costal area, pale; the tufts below and in cell formed by long hair; the ridges composed of fiery red, black, and white hair; the postmedial line dentate, with white outer edge and excurved between veins 5 and 2. Hind wing with the basal and costal areas pale; the ridges composed of black, white, and fulvous hair; the postmedial line white, dentate, and excurved between veins 2 and 6. Both wings with a marginal series of dark specks. Underside pale, except the outer area of fore wing; both wings with dentate postmedial line.

*Hab.* Bhután; Sikhim. *Exp.*, ♂ 20, ♀ 30 millim.

4463. **Stericta pyraliata,** *Moore, Lep. Atk.* p. 202; *C. & S.* no. 4484.

Olive-green variegated with rufous and fuscous. Fore wing with the tufts composed of black, white, and rufous scales; the costa fuscous; a pale waved antemedial line with large fuscous patch inside it on inner area; a dark discocellular spot; a pale postmedial line excurved between veins 5 and 2, with a broad band of fuscous suffusion on its inuer side aud slight fuscous suffusion beyond it, and some cupreous scales on inner area; a marginal series of black striæ. Hind wing pale; the outer area suffused

with fuscous; a minutely waved line from vein 5 to near anal angle; a marginal series of fuscous striæ. Underside with the fuscous pale-edged postmedial line prominent on each wing, and bent outwards at vein 4.

*Hab.* Sikhim. *Exp.* 24 millim.

4464. **Stericta aglossalis**, *Warr. A. M. N. H.* (6) xvii, p. 456.

Head and thorax clothed with yellowish-green and black hair; abdomen rufous and black. Fore wing with the basal half yellowish green and black; an ill-defined antemedial line, with dentitions in and below cell; the tuft in cell black and white; the outer area fuscous and black, with a flesh-pink subapical streak and larger fascia on vein 2; a crenulate postmedial line excurved between veins 2 and 5; a few white hairs in the streaks. Hind wing fuscous and black, with some white hairs in the streaks; a dentate postmedial line excurved between veins 2 and 5. Underside grey, with the postmedial dentate line prominent.

*Hab.* Dalhousie; Khásis. *Exp.*, ♂ 30, ♀ 34 millim.

SECT. II. Male with the maxillary palpi filiform; antennæ with fascicles of cilia and no process on basal joint.

A. *Fore wing of male with no fovea on underside beyond the cell.*

4465. **Stericta carneotincta**, n. sp.

♂. Head, thorax, and abdomen ochreous and white. Fore wing white, the basal half irrorated and suffused with ochreous, which forms two irregular patches in and below end of cell; the medial area less marked with ochreous; traces of a waved postmedial ochreous band excurved between veins 5 and 2, and with dark marks beyond it between veins 1 and 6; the outer area ochreous, with a series of marginal specks. Hind wing suffused with flesh-colour; traces of a waved postmedial line; a darker marginal band.

*Hab.* Sikhim (*Dudgeon*). *Exp.* 30 millim. Type in B. M.

4466. **Stericta plumbifloccalis**, n. sp.

♂. Ochreous white; palpi fuscous at extremity; antennæ fuscous; abdomen with dorsal leaden-coloured bands on the first two segments. Fore wing with the costal area tinged with rufous; some slight leaden streaks on basal inner area; tuft-bearing leaden streaks below middle and in and beyond end of cell; a slightly sinuous pale postmedial line inwardly defined by fuscous, and with the area beyond it fuscous. Hind wing with sinuous black postmedial line, most strongly marked towards inner margin; two submarginal leaden specks on middle of outer area.

*Hab.* Tenasserim (*Doherty*). *Exp.* 22 millim. Type in coll. Druce.

B. (Trichotophysa). *Fore wing of male with a large fovea on underside beyond the discocellulars, covered with long hair and with vein 6 bent round it; a fan of scales above.*

4467. **Stericta jucundalis**, *Wlk. Cat.* xxxiv, p. 1164; *C. & S.* no. 4489; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 7.
Trichotophysa olivalis, *Warr. A. M. N. H.* (6) xvii, p. 457.

♂. Goldeu olive, slightly irrorated and suffused with black. Fore wing with two subbasal black specks, the upper on costa; an indistinct antemedial series of black specks, with traces of a waved line beyond them; a black speck before the discocellular tuft; the disk irrorated with black and rufous scales; a minutely dentate postmedial line excurved from vein 2 to 6, and with two indistinct dark streaks beyond its middle. Hind wing fuscous; the margin slightly tinged with rufous; both wings with marginal series of dark specks; the cilia white, chequered with black. Underside of hind wing with postmedial deutate line.

*Hab.* Bhután; Khásis; Ceylon. *Exp.* 22 millim.

## Genus ORTHAGA.

Orthaga, *Wlk. Cat.* xvi, p. 191 (1858).
Catamola, *Meyr. Trans. Ent. Soc.* 1884, p. 63.
Balanotis, *Meyr. Trans. Ent. Soc.* 1884, p. 69.
Pannucha, *Moore, Lep. Atk.* p. 199 (1888).
Hyperbalanotis, *Warr. A. M. N. H.* (6) vii, p. 433 (1891).

Type, *O. euadrusalis*, Wlk.

*Range.* Japan; Oriental region; Australia.

Palpi upturued, reaching vertex of head, and roughly scaled: maxillary palpi filiform; antenuæ of male minutely serrate and fasciculate; tibiæ smoothly scaled. Fore wing with the apex rounded; slight tufts of raised scales below middle and beyond end of cell; vein 3 from near lower angle of cell; 4, 5 from the angle; 7, 8, 9 stalked; male usually with a furrow above vein 6, which is bent dowu to near 5, and a glandular lobe on costa at two-thirds from base, with veins 10, 11 curved round it. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle or shortly stalked.

SECT. I. (*Orthaga*). Male with no process from basal joint of antennæ.

A. *Male with the maxillary palpi filiform.*

4468. **Orthaga roseiplaga**, n. sp.

♂. Head and thorax grey suffused with dark rufous; abdomen rufous irrorated with fuscous. Fore wing grey, irrorated and suffused with dark rufous; traces of a minutely dentate antemedial line and more prominent postmedial lino excurved from costa to vein 2, then bent outwards, tho area beyond it dark rufous;

a dark speck in end of cell and two on costa above it; a pink patch just beyond the discocellulars. Hind wing fuscous brown.
*Hab.* Bombay. *Exp.* 30 millim. Type in B. M.

4469. **Orthaga rudis,** *Wlk. Trans. Ent. Soc.* 3rd series, i, p. 115; *C. & S.* no. 4477.

♀. Pale reddish brown and grey, slightly irrorated with fuscous. Fore wing with the basal half slightly tinged with olive; some black scales before the grey and rufous tufts below and at end of cell; the tuft beyond the cell dark; a dentate postmedial dark line with grey outer edge, excurved from the costa to vein 4, then incurved, a diffused dark line across its curve and sometimes white in the curve; a marginal series of dark specks. Hind wing pale, suffused with fuscous brown on outer half; traces of a waved postmedial line, which is more prominent on underside.
*Hab.* "India"; Nilgiris. *Exp.* 40 millim.

4470. **Orthaga exvinacea,** *Hmpsn. Ill. Het.* viii, p. 127, pl. 154, fig. 9.

♀. Differs from *roseiplaga* in the basal two-thirds of fore wing being suffused with dull olive-green; a dark speck beyond the cell but no pink patch; the postmedial line regularly curved and crenulate; the outer area suffused with vinous and with a prominent series of dark marginal specks. Hind wing with dark marginal line. Underside of hind wing pale to beyond the slightly waved curved postmedial line; the outer area fuscous.
*Hab.* Nilgiris, W. slopes. *Exp.* 30 millim.

4471. **Orthaga irrorata,** *Hmpsn. Ill. Het.* ix, p. 156, pl. 172, fig. 1.

♀. Head, thorax, abdomen, and fore wing clothed with grey, ferruginous, and fuscous scales; the last with a ferruginous spot at base; two obscure ferruginous medial lines; a short black streak on median nervure and speck on discocellulars; a highly curved and minutely dentate postmedial dark line with rufous in its curve, grey outer edge, and the area beyond it suffused with brown; a marginal series of brown specks. Hind wing brown; the cilia grey-tipped. Underside brown; hind wing with obscure curved postmedial line.
*Hab.* Ceylon. *Exp.* 28 millim.

4472. **Orthaga euadrusalis,** *Wlk. Cat.* xvi, p. 191; *Moore, Lep. Ceyl.* iii, pl. 178, figs. 2, 2 *a*; *C. & S.* no. 4488.
Orthaga acontialis, *Wlk. Cat.* xxvii, p. 103.

Head and thorax grey with a slight olive-green tinge; abdomen grey suffused with fuscous. Fore wing yellowish white with an olive tinge and slight rufous and fuscous irroration; black specks at base and in middle of cell; a large antemedial black spot on costa; a curved minutely dentate postmedial line; the apical half

of outer area fuscous; the inner half olive suffused with fuscous; cilia chequered with black. Hind wing fuscous; the cilia rufous; underside with indistinct medial curved line.

The larvæ live as colonies in webs in cases formed of their own excrement.

*Hab.* Sikhim; Ceylon; Borneo; Java. *Exp.* 32 millim.

4473. **Orthaga molleri**, n. sp.

♂. Olive-green, variegated with yellow and black. Fore wing with subbasal black mark on costa; an ill-defined double-waved antemedial black line; some black suffusion below lower angle of cell; a dentate postmedial line excurved beyond cell; marginal and cilial series of dark spots. Hind wing pale fuscous, with paler postmedial band with crenulate edges; a marginal line and series of specks on the cilia.

*Hab.* Sikhim, 7000 feet (*Möller*). *Exp.* 28 millim. Type in B. M.

4474. **Orthaga auroviridalis**, n. sp.

Golden olive; frons and thorax marked with white; abdomen irrorated with fuscous. Fore wing with a white subbasal speck on costa; a white mark before the black tuft of scales below the cell; the medial area irrorated with black; an oblique white medial mark from costa; some black scales in the discocellular tuft; a submarginal crenulate black line excurved from veins 6 to 2 and with white outer edge; a marginal series of black specks. Hind wing fuscous brown. Underside with indistinct crenulate submarginal line to both wings.

*Hab.* Sikhim; Bhután (*Dudgeon*). *Exp.*, ♂ 26, ♀ 34 millim. Type in B. M.

B. *Male with the 2nd joint of palpi hollowed out to receive the brush-like maxillary palpi.*

4475. **Orthaga onerata**, *Butl. A. M. N. H.* (5) iv, p. 447.

Head and thorax clothed with olive-green and grey scales, the abdomen with white and black scales. Fore wing with the base olive-green, with a diffused grey line on it and a black mark at middle; the medial area grey, with traces of a waved olive antemedial line; a prominent black speck at end of cell; the outer area suffused with black and irrorated with grey towards margin; a curved crenulate postmedial line with grey outer edge; a marginal series of black specks; cilia chequered pale rufous and black. Hind wing pale fuscous; the cilia pale, with a dark line through them; underside with curved, slightly crenulate postmedial line.

Japanese specimens are rather browner than the female from Bhután.

*Hab.* Japan; Bhután; Java. *Exp.* 24 millim.

SECT. II. Male with a long process from basal joint of antennæ recurved over thorax, and with tufts of long scales below towards extremity.

A. (Panucha). *Male with a glandular lobe on costa and vein 6 downcurved.*

4476. **Orthaga vitialis**, *Wlk. Cat.* xix, p. 897; *C. & S.* no. 4474.
Pyralis helvialis, *Wlk.* xix, p. 915.
Catamola elassota, *Meyr. Trans. Ent. Soc.* 1884, p. 280.

Pale rufous irrorated with fuscous. Fore wing with the basal area dark bounded by an oblique line; a dark medial spot on costa; an obscure antemedial line highly excurved from vein 6 to 2, where it is suddenly bent inwards; the whole apical area fuscous and some fuscous suffusion near outer angle; a marginal series of dark specks. Hind wing pale, with traces of minutely crenulate postmedial line; the margin suffused with fuscous; cilia of both wings pinkish.

*Hab.* Ceylon; Australia. *Exp.* 26 millim.

4477. **Orthaga basalis**, *Moore, Lep. Atk.* p. 200, pl. 7, fig. 2.

♂. Head and thorax ochreous suffused with rufous; abdomen suffused with fuscous, and with rufous towards extremity. Fore wing of various shades of rufous; the costal and outer areas tinged with olive; the basal and outer areas irrorated with white; an indistinct minutely dentate antemedial line; a dentate postmedial line excurved beyond cell. Hind wing pale fuscous; both wings with the margin dark, with white specks at the veins; the cilia rufous chequered with black. Underside of fore wing fuscous, with some ochreous and black specks on middle of costa. Hind wing ochreous irrorated with black; a minutely dentate postmedial curved line; apical area fuscous.

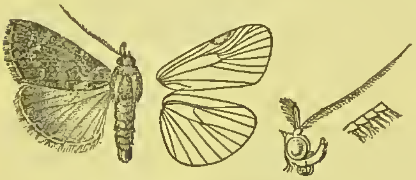

Fig. 71.—*Orthaga basalis*, ♂. ½.

*Hab.* Sikhim; Nágas. *Exp.* 32 millim.

4478. **Orthaga ænescens**, *Moore, Lep. Atk.* p. 200; *C. & S.* no. 4478.
Pannucha vicinalis, *Snell. Trans. Ent. Soc.* 1890, p. 567, pl. 20, figs. 2, 2 *a*.

Olive-green irrorated with black. Fore wing with a triangular black subbasal patch, with its base on the costa, its apex nearly touching inner margin, and with traces of a waved antemedial line beyond it; a black spot at end of cell; a minutely dentate postmedial black line highly excurved from veins 6 to 2, and with

olive-green on its outer edge, beyond which is black suffusion of a somewhat denticulate form; a marginal series of black specks; cilia pink and black. Hind wing fuscous; the cilia pinkish; underside with a curved minutely dentate postmedial line.

*Hab.* Sikhim; Nágas. *Exp.*, ♂ 30, ♀ 32 millim.

B. *Male with no glandular swelling on costa and vein 6 straight.*

4479. **Orthaga euryzona**, n. sp.

♂. Head and thorax blackish, the antennal processes and patagia rufous; abdomen brown tinged with fuscous. Fore wing reddish brown, with a medial black band occupying half the wing, its inner edge sinuous, its outer excurved between veins 5 and 2. Hind wing pale rufous, with a fuscous patch beyond lower angle of cell and slight dark mark beyond it on the margin.

*Hab.* E. Pegu (*Doherty*). *Exp.* 22 millim. Type in coll. Elwes.

## Subfamily CHRYSAUGINÆ.

Proboscis well developed; palpi of extremely different types; maxillary palpi absent; frons usually with a conical tuft. Fore wing with vein 7 stalked with 8, 9 in female, the subcostal neuration varying greatly in the male in relation to the secondary sexual characters. Hind wing with the median nervure not pectinate above; vein 7 almost always anastomosing with 8.

This subfamily is almost confined to the Neotropical region, where it is very largely developed.

*Key to the Genera.*

A. Palpi upturned, reaching just above vertex of head .......... 1. TERATOMORPHA, [p. 128.

B. Palpi porrect, straight, and about four times length of head .......... 2. MACNA, p. 129.

### Genus TERATOMORPHA.

Teratomorpha, *De Nicéville, Jour. Bom. N. H. Soc.* x, p. 192 (1896).

Type, *T. hampsoni*, De Nicéville.

*Range.* Burma.

Palpi upturned, the 2nd joint reaching vertex of head and moderately scaled in front, the 3rd short and naked; maxillary palpi absent; frons rounded; antennæ almost simple; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the costa arched at base and excised beyond middle, the apex bent upwards, arched and falcate; the outer margin excised below apex, produced and hooked at middle, then excised to outer angle; the inner margin lobed; male with large costal glandular swelling at base, on underside with tufts of long hair proceeding from it;

vein 3 from before angle of cell; 4, 5 from angle; 7, 8, 9 curved; 10 from cell. Hind wing with the outer margin somewhat excised below apex and angled at vein 2; vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing slightly with 8.

4480. **Teratomorpha hampsoni**, *De Nicéville, Jour. Bom. N. H. Soc.* x, p. 192, pl. 1, f. 52.

♂. Head dark vinous red; thorax and abdomen fuscous. Fore wing dark sap-green; the base and costal area dark vinous red; a large vinous-red discocellular reniform spot conjoined to the red costal area, extending below vein 2, and enclosing a green spot at its upper exterior edge; the outer area suffused with vinous-red scales. Hind wing fuscous brown; the inner area deep smoky black; the cilia reddish. Underside fuscous brown; the outer area of fore wing vinous red; hind wing with indistinct pale sinuous submarginal line.

Fig. 72.—*Teratomorpha hampsoni*, ♂. ½.

*Hab.* Dawnat Range, Tenasserim. *Exp.* 32 millim.

## Genus MACNA.

Macna, *Wlk. Cat.* xvi, p. 78 (1858).
Rhabana, *Wlk. Cat.* xxxiv, p. 1517 (1865).
Goossensia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 97.

Type, *M. pomalis*, Wlk.

*Range.* Bhután; Andamans; Malayan subregion.

Palpi porrect, with the 2nd joint three times the length of head and fringed with hair above and below, the 3rd long and fringed with hair below; antennæ ciliated; tibiæ and tarsi fringed with long hair. Fore wing with the costa arched, the apex produced to a point; the outer margin angled at vein 4 and excised from vein 4 to apex; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked. Hind wing with the outer margin very slightly angled at vein 2; the anal angle truncate; vein 3 from close to angle of cell; 4, 5 shortly stalked; 6, 7 stalked, 7 anastomosing slightly with 8.

Male with a large costal glandular swelling at base of fore wing on underside, with a thick tuft of silken hair from it directed obliquely downwards; the basal half of costa fringed with hair below.

4481. **Macna pomalis**, *Wlk. Cat.* xvi, p. 78; *C. & S.* no. 2829.
Goossensia prasinalis, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 98; *id. Mon. Phyc.* pl. xlvi, fig. 4.

Bright apple-green. Fore wing with indistinct fine waved rufous antemedial line, dentate in the cell; the reniform outlined by a fine rufous line; indistinct fine dentate postmedial and submarginal lines, the former with a white-centred spot on it below vein 2, the latter with a black spot above vein 2. Hind

Fig. 73.—*Macna pomalis*, ♂. 1/1.

wing with a slight pinkish tinge; a pinkish spot on discocellulars; traces of waved postmedial and submarginal lines; cilia pinkish. Underside with the costal area of both wings and cell-spots pinkish.

*Hab.* Bhután; Malacca; Singapore; Salanga. *Exp.*, ♂ 50, ♀ 64 millim.

4482. **Macna platychloralis**, *Wlk. Cat.* xxxiv, p. 1517.

♂. Differs from *pomalis* in the hind wing being vinous red above and below, and usually with the postmedial line prominent. ♀ with large dark patches on area near outer angle of fore wing, and on anal area of hind wing.

*Hab.* Andamans; Java. *Exp.*, ♂ 52–54, ♀ 62 millim.

## Subfamily ENDOTRICHINÆ.

Build slender; maxillary palpi present; proboscis well developed. Fore wing with veins 7, 8, 9 stalked *. Hind wing with the median nervure non-pectinate; vein 7 anastomosing with 8.

*Key to the Genera.*

A. Palpi upturned.
  *a.* Fore wing with veins 3, 4, 5 stalked.
    *a′.* Fore wing with vein 2 absent; 7, 8, 9, 10, 11 stalked .......... 4. PETTA, p. 137.
    *b′.* Fore wing with vein 2 present; 7, 8, 9, 10 stalked .......... 3. CANGETTA, p. 136.
  *b.* Fore wing with vein 3 from cell.
    *a′.* Palpi reaching far above vertex of head; fore wing with veins 7, 8, 9, 10 stalked .......... 1. RODABA, p. 131.

* In *Hendecasis* and some species of *Trichophysetis* vein 7 is absent.

*b'*. Palpi hardly reaching vertex of head; fore wing with vein 10 free. 2. ENDOTRICHA, p. 132.
B. Palpi porrect.
*a*. Palpi triangularly sealed, 3rd joint hidden in hair; both wings with veins 4, 5 approximated towards origin ........................ 9. COTACHENA, p. 142.
*b*. Palpi rostriform and downcurved; both wings with veins 4, 5 stalked.
*a'*. Fore wing with vein 10 free; antennæ with the shaft smooth.. 8. ROSTRIPALPUS, p. 142.
*b'*. Fore wing with vein 10 stalked with 7, 8, 9; antennæ with the shaft annulate ................ 7. PLEONECTOIDES, p. 141.
*c*. Palpi straight, two or three times length of head; maxillary palpi triangularly scaled.
*a'*. Palpi thickly fringed with hair above and below .............. 5. TRICHOPHYSETIS, p. 138.
*b'*. Palpi nearly naked ............ 6. HENDECASIS, p. 140.

## Genus RODABA.

Rodaba, *Moore, Lep. Atk.* p. 205 (1888).

Type, *R. angulipennis*, Moore.
*Range*. Sikhim.

Palpi obliquely upturned, the 2nd joint reaching far above vertex of head and fringed with hair on both sides, the 3rd acute; maxillary palpi minute and filiform; antennæ nearly simple; tibiæ with the spurs long. Fore wing with the costa nearly straight; the apex falcate; the outer margin excised from apex to vein 4, where it is highly angled, then excised to outer angle; vein 3 from close to angle of cell; 4, 5 from angle; 10 stalked with 7, 8, 9. Hind wing with the apex somewhat produced; vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4483. **Rodaba angulipennis**, *Moore, Lep. Atk.* p. 205; *C. & S.* no. 4492.

Dark coppery red. Fore wing with the medial part of costa leaden grey; an indistinct dark-edged grey antemedial band angled below the cell; a dark discocellular spot; a double oblique grey postmedial band with fuscous suffusion on its edges extending to the outer margin below the angle; cilia white, dark at apex and middle. Hind wing fuscous, with traces of curved double postmedial line.

Fig. 74.—*Rodaba angulipennis*, ♂ 1/1.

*Hab*. Sikhim. *Exp*. 26 millim.

## Genus ENDOTRICHA.

Endotricha, *Zell. Isis*, 1847, p. 593.
Doththa, *Wlk. Cat.* xvii, p. 285 (1859).
Messatis, *Wlk. Cat.* xix, p. 918 (1859).
Pacoria, *Wlk. Cat.* xxxiv, p. 1255 (1865).
Zamia, *Wlk. Cat.* xxxiv, p. 1256.
Tricomia, *Wlk. Cat.* xxxiv, p. 1259.
Rhisina, *Wlk. Cat.* xxxiv, p. 1324.
Endotrichodes, *Rag. Ann. Soc. Ent. Fr.* 1890, p. 521.
Endotrichopsis, *Warr. A. M. N. H.* (6) xvi, p. 467 (1895).
Perisseretma, *Warr. A. M. N. H.* (6) xvi, p. 468.

Type, *E. flammealis*, Schiff., from Europe.
*Range.* Universally distributed.

Palpi upturned, hardly reaching vertex of head, and thickly scaled; maxillary palpi usually minute and filiform; antennæ of male ciliated, the basal joint somewhat dilated; patagia of male with long tufts of hair extending far beyond metathorax; abdomen with thick lateral anal tufts; legs long, slender, and smoothly scaled. Fore wing usually long and narrow; the costa arched towards apex, which is acute; vein 3 from before angle of cell; 4, 5 approximated towards origin or stalked; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 approximated towards origin or stalked; 6, 7 shortly stalked.

Sect. I. (*Zamia*). Male with the fore wing very broad, the inner margin expanded and lobed, the outer margin erect; hind wing very broad, with a fold running from the base through the cell to outer margin, the inner area expanded and lobed.

4484. **Endotricha decessalis**, *Wlk. Cat.* xvii, p. 390; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 11; *C. & S.* no. 4496.

Differs from *albicilia* in being more fulvous red; fore wing with the antemedial line dark; the submarginal line arising from the costa further from the apex and running obliquely to outer angle.

*Hab.* Ceylon; Burma; Sumbawa. *Exp.* 20 millim.

Sect. II. Male with the wings normal.

A. (Perisseretma). *Maxillary palpi of male twice as long as the labial, curved and meeting at apex, fringed with long scales on inner side towards extremity.*

4485. **Endotricha endotrichalis**, *Warr. A. M. N. H.* (6) xvi, p. 468.

♂. Purplish pink irrorated with fuscous. Fore wing with the basal area suffused with fuscous, its outer edge oblique; a prominent black discocellular spot; a quadrate black patch between lower angle of cell and vein 1; an indistinct oblique pale postmedial line; the outer area suffused with fuscous; a marginal series of black specks. Hind wing with traces of an antemedial and two postmedial pale lines; a marginal series of dark specks.

*Hab.* Mussooree. *Exp.* 16 millim.

B. (Endotricha). *Maxillary palpi of male normal.*

a. *Antennæ of male with a spine on basal joint.*

4486. **Endotricha mesenterialis,** *Wlk. Cat.* xvii, p. 285; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 8; *C. & S.* no. 4493.
Endotricha suffusalis, *Wlk. Cat.* xvii, p. 390; *C. & S.* no. 4495.
Endotricha flavifimbrialis, *Warr. A. M. N. H.* (6) viii, p. 69.
Endotricha eoidalis, *Snell. Tijd. v. Ent.* xxxviii, 1894, p. 10, pl. 5, figs. 2, 3.

♂. Fulvous; wings with the basal area bright pink, bounded by the antemedial line followed by an ochreous-yellow medial band running out along costa to near apex of each wing; the outer area suffused with pink. Fore wing with sinuous submarginal yellow line and marginal pink band. Hind wing with sinuous postmedial line; cilia golden yellow, pink at apex and middle of fore wing, their bases with pink spots on hind wing.

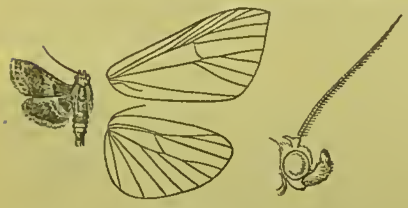

Fig. 75.
*Endotricha mesenterialis*, ♂. 1/1.

♀ with the head, thorax, and abdomen often suffused with pink, sometimes leaving the anal segments fulvous; fore wing with the medial band and costal fascia more or less completely suffused with pink; hind wing completely suffused with pink.

The form *suffusalis* has the basal area of both wings suffused with fuscous.

*Hab.* Formosa; N.W. Himalayas; Bombay; Nilgiris; Ceylon; Thayetmyo, Burma; E. Pegu; Borneo; Java. *Exp.* 18–22 millim.

b. *Antennæ of male with no spine on basal joint.*

4487. **Endotricha albicilia,** *Hmpsn. Ill. Het.* viii, p. 130, pl. 154, fig. 22.

Fulvous suffused with pink; the wings slightly irrorated with black. Fore wing with the costa black, with small ochreous spots at regular intervals; an indistinct pale waved antemedial line; a dark speck at end of cell; a slightly crenulate dark submarginal line. Hind wing much pinker; the costal area and the internomedian interspace as far as the postmedial line ochreous; a curved medial pale line and slightly sinuous postmedial pale line ending at anal angle; cilia of both wings pale at base, pure white at tips.

*Hab.* Sikhim; Nilgiris; Ceylon. *Exp.*, ♂ 30, ♀ 20 millim.

4488. **Endotricha costæmaculalis,** *Christ. Bull. Soc. Nat. Mosc.* 1881, i, p. 4.
Endotricha fuscobasalis, *Rag. Ann. Soc. Ent. Fr.* 1890, p. 526.

♂. Fulvous suffused with pink and fuscous; thorax, base of abdomen, and basal area of wings strongly suffused with fuscous black. Fore wing with sinuous antemedial white line; a disco-

cellular black lunule; a fulvous fascia and white specks on outer half of costa; a minutely dentate fulvous-edged dark submarginal line bent inwards below vein 6. Hind wing with the basal black area sending a large patch across the middle of the medial band which is pale; cilia bright yellow, black at apex of fore wing and middle of each wing. Underside of hind wing with the ante- and postmedial lines strongly outlined with black.

♀ without the black suffusion on thorax, abdomen, and base of wings; hind wing with ochreous medial band with the black ante- and postmedial lines just inside its edges.

*Hab.* Siberia; Japan; Dalhousie; Sikhim. *Exp.* 24 millim.

4489. **Endotricha fuscifusalis**, n. sp.

♂. Head, thorax, and abdomen fulvous and fuscous; wings dark red suffused with fuscous or fuscous brown. Fore wing with ill-defined curved antemedial whitish line; a fulvous fascia and white specks on the outer half of costa; a white submarginal line minutely dentate below costa and bent inwards below vein 6, then straight. Hind wing with a medial white band with some black on it and constricted at vein 2; cilia white, with their bases fuscous and pink or fuscous only in dark specimens, black at apex of fore wing and middle of each wing. Underside of hind wing with the ante- and postmedial lines strongly outlined with black.

*Hab.* Murree; Dalhousie (*Harford*). *Exp.*, ♂ 22, ♀ 20 millim. Type in B. M.

4490. **Endotricha serratalis**, *Snell. Trans. Ent. Soc.* 1890, p. 570.

♀. Head, thorax, and abdomen fuscous, with a few ochreous scales. Fore wing fuscous suffused with dark vinous red; a slightly sinuous white antemedial line with some ochreous suffusion beyond it at middle; a series of white specks on costa; a black discocellular lunule; a white submarginal line much bent inwards and dentate between veins 6 and 2. Hind wing whitish slightly suffused with fuscous; both wings with marginal series of black striæ. Underside of hind wing fuscous, with irregular dark ante- and postmedial lines approaching each other towards inner margin.

*Hab.* Sikhim. *Exp.* 24 millim.

4491. **Endotricha loricata**, *Moore, Lep. Atk.* p. 206; *C. & S.* no. 4497.
Pyralis ustalis, *Hmpsn. Ill. Het.* ix, p. 159, pl. 172, fig. 26.

♀. Pale brick-red suffused and irrorated with fuscous. Fore wing with a series of pale specks on the costa; a slightly oblique pale medial line with fuscous suffusion inside it; a dark cell-speck; a slightly curved submarginal dark-edged pale line running obliquely to outer angle; a marginal series of black specks. Hind wing suffused with fuscous except the medial pale-edged red band, which is widest towards inner margin; cilia of both wings pink and black.

*Hab.* Calcutta; Ceylon. *Exp.* 16 millim.

4492. **Endotricha ruminalis**, *Wlk. Cat.* xvii, p. 387; *C. & S.* no. 4281.
Pyralis ibycusalis, *Wlk. Cat.* xix, p. 899; *C. & S.* no. 4448.
Endotricha symphonialis, *Hmpsn. Ill. Het.* ix, p. 161, pl. 171, fig. 17.

Pale olive-brown. Fore wing slightly irrorated with black and with some dark specks on costa; an oblique white medial line with some red scales inside it on inner margin; a black discocellular speck; the outer area suffused with red and fuscous except at costa; a submarginal line with dark edge excurved from costa to vein 2, the area beyond it purplish red. Hind wing with the base pale olive; a black-irrorated pink medial band edged by slightly sinuous white lines, the area beyond it pink and black; cilia of both wings pink and black at base, pure white at tips. Underside with the postmedial line of hind wing strongly outlined with black.

The Sikhim specimen is more suffused with fuscous; the cilia at middle of fore wing black.

*Hab.* Sikhim; Rangoon; E. Pegu; Ceylon. *Exp.* 18 millim.

4493. **Endotricha sondaicalis**, *Snell. Tijd. v. Ent.* xxiii, 1880, p. 200; xxvi, p. 123, pl. 6, fig. 6.
Doththa similata, *Moore, Lep. Atk.* p. 206; *C. & S.* no. 4494.

Differs from *mesenterialis* in being uniform purplish pink. Fore wing with the pale curved antemedial line further from the base; the submarginal line oblique and slightly bent inwards below vein 6. Hind wing with the ante- and postmedial lines closer together below median nervure; cilia of both wings golden yellow, black at apex and middle of fore wing, and their bases pink and black except towards apex of fore wing.

*Hab.* Dharmsála; Sikhim; Celebes. *Exp.* 24 millim.

4494. **Endotricha ardentalis**, n. sp.

♀. Dark crimson-red. Fore wing with white specks on costa; a curved white antemedial line expanding into a spot below costa; a minutely waved double black submarginal line; cilia pale yellow, black at apex and below middle, the bases black from middle to outer angle. Hind wing more crimson, with black-edged sinuous pale ante- and postmedial lines; cilia pale yellow, black at bases. Underside with black patch on disk of fore wing, the lines of hind wing strongly outlined with black.

*Hab.* Bhután (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

4495. **Endotricha rufofimbrialis**, *Warr. A. M. N. H.* (6) viii, p. 69.

♀. Head, thorax, and abdomen olive-yellow. Fore wing olive-yellow, with indistinct curved antemedial line; a dark discocellular spot; the outer third of wing crimson except on costal area; traces of a submarginal line with a marginal crimson band beyond it. Hind wing crimson, with broad medial yellow band edged by black and white lines; cilia of both wings crimson, yellow below

apex. Underside with the base of fore wing blackish, and the black discocellular spot very prominent; hind wing with the postmedial line oblique and angled above anal angle.

*Hab.* Bhután; Borneo. *Exp.* 20 millim.

4496. **Endotricha luteogrisalis**, n. sp.

Head, collar, and abdomen orange-yellow; thorax fuscous. Fore wing orange-yellow, the pale curved antemedial line with some fuscous suffusion inside it; the outer area pale purplish fuscous, with a slightly sinuous white line on its inner edge. Hind wing pale purplish fuscous, with broad white medial band suffused with orange-yellow and with some black suffusion on its sinuous edges; cilia of both wings white with their bases fuscous.

*Hab.* Bhután (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

4497. **Endotricha duplicilinea**, *Hmpsn. Ill. Het.* ix, p. 159, pl. 171, fig. 21.

♀. Pale chestnut; abdomen suffused with black at base and towards extremity. Fore wing with subbasal oblique line of the ground-colour defined on its inner edge by black patches on costa and inner margin, on its outer edge by a black line; a black cell-spot; an oblique postmedial line defined on its inner edge by a black spot on costa and traces of a line, on its outer edge by a fuscous band. Hind wing with the base suffused with fuscous, with the pale subbasal line on it; a double fuscous postmedial line.

*Hab.* Ceylon. *Exp.* 14 millim.

4498. **Endotricha pygmæalis**, *Warr. A. M. N. H.* (6) xvii, p. 204.

Head, thorax, and abdomen white marked with black; wings white. Fore wing with black suffusion on basal costal area crossed by a subbasal white line; a curved antemedial white line defined by black; the inner medial area black; the discal and apical areas orange; a waved postmedial white line defined by black, running out to angles on veins 6 and 3, then retracted to below angle of cell; a fuscous and deep red patch on middle of outer area crossed by a submarginal white line, defined outwardly by black near costa and angled on vein 6; cilia fuscous at apex and middle. Hind wing with broad medial black band traversed by waved white ante- and postmedial lines and with a prominent quadrate white spot at lower angle of cell; outer area tinged with orange.

*Hab.* Khásis. *Exp.* 12 millim.

Genus **CANGETTA**.

Cangetta, *Moore, Lep. Ceyl.* iii, p. 314 (1886).

Type, *C. rectilinea*, Moore.

*Range.* W. Africa; Khásis; Ceylon.

Palpi upturned and hardly reaching vertex of head, the 2nd joint

fringed with hair below, the 3rd conically scaled; maxillary palpi as long as the labial and dilated with scales at extremity; frons flat and oblique; antennæ annulated with rings at the joints; legs long and slender, the tibiæ somewhat hairy. Fore wing somewhat narrow; the apex rectangular; the cell short; veins 3, 4, 5 stalked; 6 from well below upper angle; 7, 8, 9, 10 stalked. Hind wing with the cell very short; vein 3 from the angle; 4, 5 on a long stalk; 6, 7 from upper angle, 7 anastomosing strongly with 8.

4499. **Cangetta rectilinea**, *Moore, Lep. Ceyl.* iii, p. 314, pl. 182, fig. 3; *C. & S.* no. 4331.

Parapoynx griseolalis, *Hmpsn. Ill. Het.* ix, p. 176, pl. 174, fig. 12.

White suffused with fuscous; palpi blackish, the 3rd joint white. Fore wing with the base of costa blackish; almost straight blackish ante- and postmedial lines, the latter slightly defined with whitish towards costa; a black marginal line, towards apex becoming maculate and inwardly defined by white. Hind wing with traces of discocellular spot; a slightly curved postmedial fuscous line terminating near anal angle; a black marginal line, obsolete below vein 2. Both wings with the cilia grey, with a dark line through them on fore wing and two on hind wing.

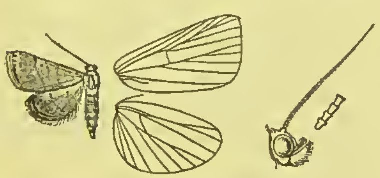

Fig. 76.—*Cangetta rectilinea*, ♂. $\frac{3}{2}$.

*Hab.* Ceylon. *Exp.* 16 millim.

4500. **Cangetta albocarnea**, *Warr. A. M. N. H.* (6) xvii, p. 149.

Pale fulvous; head whitish. Fore wing with slightly curved fulvous antemedial line; an indistinct discocellular speck; a postmedial line straight from costa to vein 2, then slightly retracted and inwardly edged by diffused white from costa to vein 5; a submarginal line with series of dark specks on it, becoming almost marginal at vein 5; a marginal line. Hind wing with antemedial fulvous line; a postmedial line oblique from costa to near the margin at vein 2, then retracted and obsolescent; some dark specks on apical part of margin.

*Hab.* Khásis; Ceylon. *Exp.* 12 millim.

## Genus **PETTA**.

Petta, *Warr. A. M. N. H.* (6) xvi, p. 469 (1895).

Type, *P. alternata*, Warr.

*Range.* Assam; Ceylon.

Palpi obliquely upturned, the 2nd joint fringed with very long hair below, the 3rd long, naked, and acute; maxillary palpi large and triangularly scaled; antennæ of male ciliated; tibiæ nearly

smooth, the spurs long. Fore wing with the outer margin excised below apex; vein 2 absent; 3, 4, 5 stalked; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 3 from angle of cell; 4, 5 stalked, or 3, 4, 5 stalked; 6, 7 from upper angle.

SECT. I. Hind wing with vein 3 from angle of cell.

4501. **Petta costastrigalis**, n. sp.

Pale ochreous, irrorated and suffused with red-brown; head and palpi above white. Fore wing with pairs of oblique white streaks on costa forming subtriangular marks; an obscure dentate antemedial line; a discocellular black spot; an obliquely sinuous postmedial line bent inwards above vein 1; a dark apical patch. Hind wing whitish, with indistinct sinuous submarginal line; both wings with fine sinuous lines on margin and cilia.

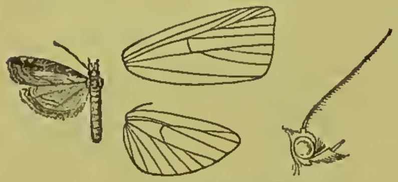

Fig. 77.—*Petta costistrigalis*, ♂. $\frac{3}{2}$.

*Hab.* Ceylon (*Green*). *Exp.* 14 millim. Type in B. M.

SECT. II. Hind wing with veins 3, 4, 5 stalked.

4502. **Petta alternata**, *Warr. A. M. N. H.* (6) xvi, p. 469.

♂. Grey, much irrorated and suffused with black-brown; frons white; abdomen ringed with white. Fore wing with two subbasal whitish lines excurved at middle; three triangular white-edged black marks on costa; both wings with submarginal white line angled on veins 5 and 2, then bent inwards to middle of inner margin; a sinuous black line just inside the margin and a marginal line. Hind wing paler.

*Hab.* Khásis. *Exp.* 12 millim.

## Genus **TRICHOPHYSETIS**.

Trichophysetis, *Meyr. Trans. Ent. Soc.* 1884, p. 287.
Callinaïas, *Swinh. Trans. Ent. Soc.* 1890, p. 286.

Type, *T. cretacea*, Butl., from Japan, Australia, Norfolk Island.
*Range.* Japan; Assam; Ceylon; Burma; Australia; Norfolk Island.

Palpi porrect, about twice as long as head, and thickly tufted with hair, the 3rd joint hidden. Maxillary palpi with a long pointed tuft of hair from extremity extending nearly as far as the labial palpi; frons rounded; antennæ thickened and flattened; legs with the spurs long and equal. Fore wing with the apex rounded; veins 3, 4 from angle of cell; 5 from above angle; 7, 8,

9, 10 stalked, or 7 absent, or 10 from cell. Hind wing with vein 5 from above angle of cell, which is short; 6, 7 from upper angle.

Sect. I. (*Trichophysetis*). Hind wing with veins 3, 4 from cell.

A. *Fore wing with vein* 7 *present*, 10 *from cell.*

4503. **Trichophysetis nigripalpis**, *Warr. A. M. N. H.* (6) xvii, p. 149.

♂. Very pale fulvous; palpi and frons jet-black; both wings with two curved fulvous medial lines bounding a pale broad medial band; fore wing with the apex brighter fulvous, inwardly defined by an indistinct dark line.

*Hab.* Khásis. *Exp.* 18 millim.

B. *Fore wing with vein* 7 *absent.*

4504. **Trichophysetis nigridiscalis**, *Warr. A. M. N. H.* (6) xvi, p. 470.

♂. Whitish; frons, maxillary palpi above, metathorax, and abdomen except 1st segment black. Fore wing with black patch from near base of inner margin to upper angle of cell and outer angle; a subbasal line; a sinuous medial black line angled below costa; a white discocellular speck; a postmedial line highly excurved below costa and waved towards inner margin; a subcostal black speck near apex; a white, black, and orange lunule on margin below apex. Hind wing wholly suffused with fuscous black except basal and costal areas; a curved antemedial and double postmedial black lines.

*Hab.* Khásis. *Exp.* 16 millim.

Sect. II. (*Callinaïas*). Hind wing with veins 3, 4 stalked.

4505. **Trichophysetis nigricincta**, *Hmpsn. Ill. Het.* ix, p. 180, pl. 174, fig. 15.

♂. Yellowish white; abdomen with a deep black dorsal band on 2nd segment. Fore wing with black speck at base; double curved ante- and postmedial lines, the latter outwardly oblique; the apical area fulvous, with a black line from below costa to outer margin at vein 3. Hind wing with double antemedial line, the inner one fulvous and indistinct, the outer prominently black from cell to inner margin; a double postmedial line, the inner one fuscous and most prominent.

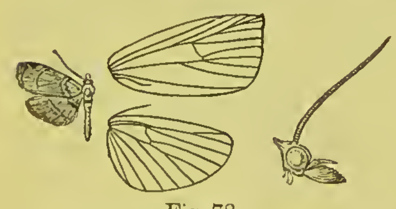

Fig. 78.
*Trichophysetis nigricincta*, ♂. 1/1.

*Hab.* Khásis; Ceylon. *Exp.* 18 millim.

4506. **Trichophysetis gracilentalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 287, pl. 8, fig. 6.

♂. Head black; thorax and abdomen yellowish white. Fore wing silky yellowish white, with traces of curved medial and postmedial ferruginous lines, most prominent towards costa; a large apical black patch. Hind wing with the base yellowish white, becoming rufous suffused with fuscous on outer area; traces of antemedial and medial ferruginous lines aud of a diffused fuscous submarginal band.

*Hab.* Bhután; Rangoon. *Exp.* 14 millim.

## Genus HENDECASIS, nov.

Type, *H. duplifascialis*, Hmpsn.

*Range.* W. Africa; India; Ceylon.

Palpi porrect, straight, and nearly naked, about three times the length of head, the 2nd joint long, the 3rd well developed; maxillary palpi triangularly scaled; frons rounded; antennæ annulate and somewhat thickened. Fore wing with the apex acute; the outer margin excurved at middle; veins 3, 4, 5 from angle of cell; 7 absent; 8, 9, 10 stalked. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4507. **Hendecasis duplifascialis**, *Hmpsn. Ill. Het.* viii, p. 141, pl. 156, fig. 18.

White with a fulvous tinge; palpi and frons blackish; abdomen suffused with fulvous and with fuscous towards extremity. Fore wing with ill-defined pale fulvous subbasal band; a sinuous fuscous antemedial line with fulvous band inside it; an indistinct white lunule at end of cell; a postmedial fuscous line highly excurved beyond cell; a black spot beyond it above vein 5; the apical area fulvous; a fuscous line from costa near apex, becoming almost marginal at vein 6, and with some white inside it. Hind wing with double sinuous black ante- and postmedial lines, becoming obsolete on costal half of wing and with fulvous between them; slight white marks on margin and black specks between vein 2 and anal angle.

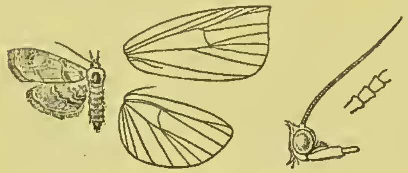

Fig. 79.
*Hendecasis duplifascialis*, ♂. $\frac{3}{2}$.

*Hab.* W. Africa; Dharmsála; Nilgiris; Ceylon. *Exp.* 14–16 millim.

4508. **Hendecasis fulvalis**, *Hmpsn. Ill. Het.* ix, p. 180, pl. 174, fig. 7.

♀. Differs from *duplifascialis* in the palpi being orange-yellow. Fore wing with the inner area between the ante- and postmedial lines orange; the postmedial double line bent outwards at vein 5 and reaching outer margin near outer angle. Hind wing with the

apical area much suffused with fulvous; the ante- and postmedial double lines more oblique, reaching the inner margin nearer the anal angle, and not obsolete but widely separated on costal half of wing; no black specks on the margin and hardly a trace of white.

*Hab.* Ceylon. *Exp.* 14 millim.

## Genus **PLEONECTOIDES.**

Pleonectoides, *Hmpsn. Ill. Het.* viii, p. 134 (1891).

Type, *P. vinacea*, Hmpsn.

*Range.* Assam; Nilgiris; Sumbawa.

Palpi porrect and rostriform, projecting about twice the length of head, the 2nd joint thickly clothed with hair concealing the 3rd; maxillary palpi dilated with scales; frons oblique; antennæ annulated with rings at the joints; legs long and slender; the outer spurs about half the length of inner; abdomen with lateral tufts towards extremity. Fore wing long and narrow; vein 3 from angle of cell; 4, 5 on a long stalk; 6 from below upper angle; 7, 8, 9, 10 stalked, and 11 closely approximated to them. Hind wing narrow; vein 3 from angle of cell; 4, 5 on a long stalk; the cell short; 6, 7 stalked.

4509. **Pleonectoides vinacea,** *Hmpsn. Ill. Het.* viii, p. 134, pl. 155, fig. 19.

♂. Pale rufous suffused with purplish fuscous; palpi white below; frons white at sides; abdomen fuscous towards extremity, the anal tuft white. Fore wing with the basal two-thirds of costa dark, the apical third fulvous; curved ante- and postmedial lines, the latter slightly angled inwards on vein 2. Hind wing with the costal and inner areas whitish; an obliquely curved postmedial line, becoming obsolescent towards anal angle; cilia of both wings whitish. Underside of hind wing white, with the postmedial line dark.

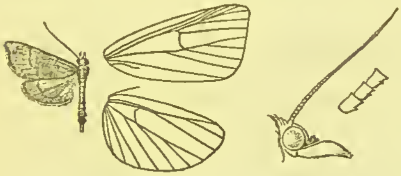

Fig. 80.
*Pleonectoides vinacea*, ♂. 1/1.

*Hab.* Nilgiris. *Exp.* 20 millim.

4510. **Pleonectoides sericialis,** n. sp.

♀. Pale silky purplish grey; a minutely waved indistinct submarginal line, slightly excurved between veins 6 and 2 of fore wing, straight on hind wing, and terminating on outer margin at vein 2; a marginal series of dark specks, terminating at vein 2 of hind wing.

*Hab.* Margharita, Assam; Sumbawa (*Doherty*). *Exp.* 16 millim. Type in coll. Elwes.

## Genus **ROSTRIPALPUS**, nov.

Type, *R. longipennis*, Hmpsn.
*Range.* S. India; Ceylon.
Palpi rostriform, curved downwards and reaching well beyond the slight frontal tuft; maxillary palpi minute; antennæ of female minutely ciliated; tibiæ with the spurs long. Fore wing very long, narrow, and produced at apex; vein 3 from angle of cell; 4, 5 stalked; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with vein 3 from angle of cell; 4, 5 stalked; 6, 7 from upper angle, 7 anastomosing strongly with 8.

4511. **Rostripalpus longipennis**, *Hmpsn. Ill. Het.* viii, p. 128, pl. 154, fig. 20.

Fig. 81.
*Rostripalpus longipennis*, ♀. $\frac{3}{2}$.

♀. Dull purplish irrorated with fuscous. Fore wing with pale specks on outer half of costa; indistinct erect black medial and postmedial lines; a fuscous discocellular spot. Hind wing with indistinct antemedial and medial black lines, highly angled at middle; both wings with a pale line at base of cilia.

*Hab.* Nilgiris; Ceylon. *Exp.* 16 millim.

## Genus **COTACHENA**.

Cotachena, *Moore, Lep. Ceyl.* iii, p. 275 (1885).

Type, *C. histricalis*, Wlk.
*Range.* China; India; Ceylon; Solomons.
Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons rounded; antennæ of male with long cilia; hind tibiæ with the outer medial spur about half the length of the inner. Fore wing with the retinaculum formed by a large valve of scales from below median nervure in both sexes; the costa arched towards apex; the outer margin oblique; the cell short; vein 3 from beyond angle of cell; 4, 5 closely approximated for about half their length. Hind wing with the cell very short; vein 3 from angle of cell; 4, 5 approximated for about one-fourth length; 6, 7 from upper angle, 7 anastomosing strongly with 8.

4512. **Cotachena histricalis**, *Wlk. Cat.* xviii, p. 655; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 5; *C. & S.* no. 4355.
Archernis pubescens, *Warr. A. M. N. H.* (6) ix, p. 300.

Palpi black, white below; thorax and abdomen yellow. Fore wing yellow suffused with rufous and fuscous; an antemedial dark line with a more or less prominent hyaline speck before it in the cell and a large quadrate hyaline spot beyond it with black outer edge; a large hyaline medial spot below vein 3, with a line from it to inner margin; a lunulate dark-edged hyaline spot from costa to vein 5, with a line from it to vein 3. Hind wing pale orange, with a dark cell-speck; a postmedial line bent outwards between veins 5 and 2 and often reduced to spots.

Fig. 82.—*Cotachena histrialis*, ♂. $\frac{1}{1}$.

The Chinese and Dharmsála race *pubescens* is smaller, with the fore wing more suffused with fuscous than the typical southern form.

*Hab.* China; Dharmsála; Sikhim; Nágas; Nilgiris; Ceylon. *Exp.* 22–26 millim.

## Subfamily PYRALINÆ.

Proboscis usually well developed; maxillary palpi present and usually filiform. Fore wing with vein 7 stalked with 8, 9. Hind wing with the median nervure non-pectinate; vein 8 free.

### *Key to the Genera.*

A. Hind tarsi with no tuft of hair on 1st joint.
- *a.* Palpi with the 2nd and 3rd joints upturned.
  - *a′.* Proboscis absent or minute; fore wing with veins 4, 5 stalked or closely approximated towards origin.
    - $a^2$. Fore wing with vein 9 stalked with 7, 8; hind wing with vein 4 present . . . . . . . . 3. Aglossa, p. 147.
    - $b^2$. Fore wing with vein 9 from cell; hind wing with vein 4 absent . . . . 2. Crocalia, p. 147.
  - *b′.* Proboscis well developed.
    - $a^2$. Abdomen long and dilated at extremity; antennæ of male with short branches . . . . . . . . 1. Vitessa, p. 145.
    - $b^2$. Abdomen normal; antennæ of male ciliated.
      - $a^3$. Hind wing with veins 4, 5 stalked.
        - $a^4$. Fore wing with vein 7 from 8 after 9 . . . . . . . . 4. Hypsopygia, p. 148.
        - $b^4$. Fore wing with vein 7 from 8 before 9 . . . . . . . . 5. Pyralis, p. 149.

$b^3$. Veins 4, 5 of each wing approximated for about one-third length . . . 6. Tegulifera, p. 152.
$c^3$. Veins 4, 5 of neither wing approximated towards origin.
$a^4$. Fore wing with vein 7 from 8 before 9.
$a^5$. Maxillary palpi well developed . . . . . . . . . . . . . . . . . . 8. Larice, p. 158.
$b^5$. Maxillary palpi minute. . . . 7. Stemmatophora, [p. 154.
$b^4$. Fore wing with vein 7 from 8 after 9 . . . . . . . . . . . . . . . . 11. Euryzona, p. 163.
*b*. Palpi obliquely upturned, the 3rd joint porrect.
*a'*. Fore wing with veins 4, 5 approximated for about one-third length.
$a^2$. Proboscis well developed; antennæ of male ciliated . . . . . . . . . . . . . 10. Herculia, p. 159.
$b^2$. Proboscis minute; antennæ of male with short branches . . . . . . 9. Tamraca, p. 158.
*b'*. Fore wing with veins 4, 5 not approximated towards origin.
$a^2$. Fore wing with vein 7 from 8 after 9 . . . . . . . . . . . . . . . . . . . . . 12. Rhynchopygia, [p. 163.
$b^2$. Fore wing with vein 7 from 8 before 9 . . . . . . . . . . . . . . . . . . . . . 13. Triphassa, p. 169.
*c*. Palpi straight and porrect.
*a'*. Veins 4, 5 of each wing approximated for about one-third length.
$a^2$. Palpi with a long sharp tuft of hair at end of 2nd joint below . . . . . . 27. Loryma, p. 183.
$b^2$. Palpi with no tuft of hair on 2nd joint . . . . . . . . . . . . . . . . . . . . . 29. Tyndis, p. 185.
*b'*. Veins 4, 5 of neither wing approximated towards origin.
$a^2$. Maxillary palpi well developed; palpi about the length of head; fore wing with vein 7 from 8 before 9. . . . . . . . . . . . . . . . . . . . 30. Discordia, p. 186.
$b^2$. Maxillary palpi minute; palpi about two and a half times length of head; fore wing with vein 7 from 8 after 9 . . . . . . . . . . . . . . . . . . . 26. Proteinia, p. 182.
*d*. Palpi rostriform and downcurved at extremity.
*a'*. Fore wing with vein 6 from the cell.
$a^2$. Palpi less than twice the length of head.
$a^3$. Maxillary palpi triangularly scaled . . . . . . . . . . . . . . . . . . 28. Constantia, p. 183.
$b^3$. Maxillary palpi filiform and well developed; frons usually with a sharp tuft.
$a^4$. Veins 4, 5 of neither wing approximated towards origin.
$a^5$. Abdomen without dorsal tufts; fore wing with the costa not arched at base . . 22. Bostra, p. 175.

$b^5$. Abdomen with dorsal tufts; fore wing with the costa arched at base .......... 16. OMPHALOCERA, p. 167.
$b^4$. Veins 4, 5 of each wing approximated for about one-third length or stalked .......... 19. PARACTENIA, p. 172.
$c^3$. Maxillary palpi minute.
$a^4$. Fore wing with veins 4, 5 from angle of cell .......... 23. DILOXIA, p. 179.
$b^4$. Fore wing with veins 4, 5 stalked .................. 17. TOCCOLOSIDA, p. 168.
$b^2$. Palpi more than twice the length of head.
$a^3$. Maxillary palpi filiform; frons with a sharp tuft; hind wing of male with a tuft of hair near inner margin above .......... 20. PROSARIS, p. 173.
$b^3$. Maxillary palpi minute; frons smooth; palpi with the 2nd joint short, the 3rd long, in male with a fringe of hair on inner side arising from a groove .... 21. TREBANIA, p. 174.
$b'$. Fore wing with vein 6 stalked with 7, 8, 9.
$a^2$. Fore wing with vein 10 free .... 15. HYBOLOMA, p. 167.
$b^2$. Fore wing with vein 10 stalked with 6, 7, 8, 9 ................ 25. ORYBINA, p. 181.
B. Hind tarsi with a large tuft of hair on 1st joint.
*a*. Palpi long, rostriform and fringed with hair in male, upturned in female. 14. RHYNCHETERA, p. 166.
*b*. Palpi long, rostriform, and smoothly scaled in both sexes; male with tufts of hair at end of 2nd and on 3rd joint, forming a cavity ............ 24. PROPACHYS, p. 180.
*c*. Palpi short and straight, hardly reaching beyond the frontal tuft ............ 18. SACADA, p. 169.

## Genus VITESSA.

Vitessa, *Moore, Lep. E. I. C.* p. 299 (1858).

Type, *V. suradeva*, Moore.

*Range.* Sikhim; Assam; S. India; Ceylon; Burma; Andamans; Nicobars; Celebes; Ceram; New Guinea.

Palpi upturned, slender, and smoothly scaled, the 2nd joint reaching vertex of head, the 3rd long; maxillary palpi dilated with scales; antennæ bipectinate in male with very short branches dilated at extremity, thickened and flattened in female; tibiæ slightly fringed with hair; abdomen dilated at extremity and with large anal tuft, the claspers of male very large and usually protruded. Fore wing long and narrow; the costa arched towards apex; vein 3 from near angle of cell; 4, 5 stalked in male, approxi-

mated in female; 9 given off from 8 after 7. Hind wing with vein 3 from near angle of cell; 4, 5 and 6, 7 stalked in male; 4, 5 approximated in female.

4513. **Vitessa suradeva**, *Moore, Lep. E. I. C.* p. 299, pl. vii *a*, fig. 7; *C. & S.* no. 4516.
Vitessa formosa, *Feld. Reis. Nov.* pl. 137, fig. 1; *C. & S.* no. 4514.
Vitessa rama, *Moore, Lep. Ceyl.* iii, p. 256, pl. 178, fig. 4; *C. & S.* no. 4515.

Head and thorax golden yellow; 3rd joint of palpi and antennæ black; collar and patagia with paired metallic black spots, the latter tipped with black and the mesothorax with a black spot; abdomen banded black and white; anal tuft orange. Fore wing with the base golden yellow; two subbasal metallic black spots;

Fig. 83.—*Vitessa suradeva*, ♂. 1/1.

two quadrate black antemedial patches; the medial area greyish white, with an irregular medial band of dentate marks enclosing an oval white spot below the costa; outer area black, the veins streaked with white. Hind wing white; the outer half bluish black; cilia of both wings greyish. Underside of fore wing black, with medial maculate white band; the veins towards apex streaked with grey; legs banded black and white.

*Hab.* Sikhim; Assam; hills of S. India; Ceylon; Burma; Mergui; Andamans; Borneo. *Exp.*, ♂ 46, ♀ 52 millim.

4514. **Vitessa nicobarica**, n. sp.

♂. Differs from *suradeva* in the abdomen being wholly yellow and orange. Fore wing with the basal orange patch reduced; the antemedial band reduced and interrupted in cell; the streaks on veins of outer area almost obsolete. Hind wing pale yellow, slightly irrorated with black, especially at apex. Underside pale yellow, the outer area of fore wing black narrowing to outer angle; hind wing with an apical black patch.

♀ with the streaks on outer area of fore wing well developed; hind wing whitish; the costal area black, the outer area suffused with black narrowing to anal angle. Underside as in *suradeva*, but with the marginal band of hind wing narrowing to anal angle.

*Hab.* Nancowry, Nicobars. *Exp.* 44 millim. Type in B. M.

## Genus CROCALIA.

Crocalia, *Rag. Ann. Soc. Ent. France,* 1891, p. 634.

Type, *C. aglossalis*, Rag.
*Range.* Sind.

Differs from *Aglossa* in the 2nd joint of palpi being less broadly fringed with hair; the maxillary palpi minute. Fore wing with veins 4, 5 stalked; 7, 8 on a long stalk; 9 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent.

4515. **Crocalia aglossalis,** *Rag. Ann. Soc. Ent. France,* 1891, p. 635.

Fig. 84.—*Crocalia aglossalis,* ♂. 1/1.

♂. Ochreous irrorated with dark red and fuscous scales. Fore wing with very obscure diffused subbasal darker band a highly waved oblique antemedial line; a discocellular black spot; a highly waved submarginal line. Hind wing ochreous white.

*Hab.* Karáchi. *Exp.* 16 millim.

## Genus AGLOSSA.

Aglossa, *Latr. Précis Caract. Gén. Ins.* p. 145 (1796).

Type, *A. pinguinalis*, Linn.
*Range.* Universally distributed.

Proboscis absent; palpi upturned well in front of frons, the 2nd joint fringed with hair in front and reaching vertex of head, the 3rd long; maxillary palpi dilated with scales at extremity; antennæ of male ciliated and with long setiferous spines; hind tibiæ fringed with hair on outer side towards base. Fore wing long and narrow; vein 3 from near angle of cell; 4, 5 closely approximated or stalked; 6 from upper angle. Hind wiug with vein 3 from angle of cell; 4, 5 closely approximated or stalked; 6, 7 from upper angle.

SECT. I. Veins 4, 5 of each wing stalked.

4516. **Aglossa dimidiata,** *Haw. Lep. Brit.* p. 372; *C. & S.* no. 4501.
Aglossa micalialis, *Wlk. Cat.* xvii, p. 277.
Pyralis circularis, *Motsch. Et. Ent.* 1860, p. 37.
Aglossa achatina, *Butl. Ill. Het.* iii, p. 72, pl. 58, fig. 6.

Fig. 85.—*Aglossa dimidiata,* ♂. 1/1.

Pale pinkish; abdomen of male with the anal tuft orange. Fore wing with diffused irregular pinkish rufous dentate lines, the subbasal obsolescent except at costa, the antemedial, medial, and postmedial angled iuwards on median nervure and vein 1, and the last greatly excurved between veins 4 and 1; the sub-

marginal regularly curved. Hind wing fuscous; cilia of both wings pale rufous.

*Hab.* Japan; China; Nilgiris; Bernardmyo, Burma. *Exp.* 24 millim.

SECT. II. Veins 4, 5 of each wing closely approximated for about one-third length.

4517. **Aglossa pinguinalis**, *Linn. Faun. Suec.* p. 351; *id. Syst. Nat.* i. p. 882; *C. & S.* no. 4503.
Aglossa pinguinalis, var. asiatica, *Ersch. Hor. Soc. Ent. Ross.* viii, p. 317.
Aglossa pinguinalis, var. aldidalis, *Christ. Hor. Soc. Ent. Ross.* x, p. 41.

Differs from *dimidiata* in being pale fuscous marked with dark brown; head tinged with fulvous. Hind wing pale, with more or less distinct dentate medial line; the outer area fuscous, narrowing to anal angle.

The form *asiatica*, ranging from Syria to the N.W. Himalayas, is considerably paler than the European form.

*Hab.* Europe; Syria; Afghanistan; N.W. Himalayas. *Exp.*, ♂ 22–24, ♀ 34–44 millim.

## Genus HYPSOPYGIA.

Hypsopygia, *Hübn. Verz.* p. 348 (? 1818).

Type, *H. costalis*, Fabr., from Europe.

*Range.* Palæarctic and Nearctic regions; Japan; China; India, Ceylon, and Burma; Australia.

Differs from *Pyralis* in the fore wing having vein 9 given off from 8 before 7.

4518. **Hypsopygia mauritialis**, *Boisd. Faun. Ent. Madag., Lép.* p. 119, pl. 16, fig. 8.
Pyralis lucillalis, *Wlk. Cat.* xvii, p. 268; *C. & S.* no. 4454.
Pyralis ducalis, *Wlk. Cat.* xxxiv, p. 1242.
Pyralis regalis, *Wlk. Cat.* xxxiv, p. 1241.
Hypsopygia laticilialis, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 28.

Fig. 86.
*Hypsopygia mauritialis*, ♂. ½.

Bright pink or purplish pink; vertex of head orange. Fore wing with ante- and postmedial sinuous pale lines arising from small orange spots on the costa and with orange specks on the costa between them; an obscure dark discocellular lunule. Hind wing with pale sinuous ante- and postmedial lines; the cilia and margin of both wings bright orange.

*Hab.* Madagascar; China; N.W. Himalayas; Manipur; Poona; Burma; Sumatra; Java; Celebes. *Exp.*, ♂ 20, ♀ 24 millim.

4519. **Hypsopygia postflava,** *Hmpsn. Ill. Het.* ix, p. 159, pl. 171, fig. 22.

Differs from *mauritialis* in being very dark purple; the vertex of head concolorous; the terminal four segments of abdomen bright yellow.

*Hab.* Bhután; Margharita, Assam; Ceylon. *Exp.* 18 millim.

4520. **Hypsopygia regina,** *Butl. A. M. N. H.* (5) iv, p. 452.

♀. Dark purplish fuscous. Fore wing with traces of curved dark antemedial line and of postmedial line arising from an orange costal spot; some yellow specks on medial part of costa. Hind wing bright pink irrorated with fuscous; the marginal area suffused with fuscous; sinuous antemedial and medial orange lines slightly outlined with black; cilia of both wings bright golden yellow.

The Ganjam specimen is dark with no red on hind wing and the cilia dusky.

*Hab.* Japan; Aska, Ganjam; Rangoon. *Exp.* 16 millim.

4521. **Hypsopygia olivalis,** *Swinh. A. M. N. H.* (6) xvi, p. 301.

♀. Head and thorax olive-green irrorated with black; abdomen fuscous irrorated with black, the anal tuft ochreous. Fore wing olive-green irrorated with black; a pale sinuous antemedial line with black outer edge; a similar postmedial line incurved below vein 5; a black discocellular spot; some pale specks on medial part of costa; a marginal series of black specks. Hind wing fuscous, with curved dark postmedial line.

*Hab.* Mahableshwar. *Exp.* 20 millim.

## Genus **PYRALIS.**

Pyralis, *Linn. Syst. Nat.* xii, p. 881 (1767).
Asopia, *Treitschke, Schmett. Eur.* vi, 2, p. 316 (1828).
Sacatia, *Wlk. Cat.* xxvii, p. 123 (1863).
Eutrichodes, *Warr. A. M. N. H.* (6) vii, p. 498.

Type, *P. farinalis*, Linn., from Europe.

*Range.* Universally distributed.

Palpi upturned, the 2nd joint fringed with hair in front and reaching vertex of head, the 3rd of moderate length; maxillary palpi filiform; antennæ of male ciliated; tibiæ moderately hairy. Fore wing with the apex rounded; vein 3 from before angle of cell; 4, 5 usually stalked; 7 given off from 8 before 9; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 and 6, 7 stalked.

Sect. I. Veins 4, 5 of fore wing approximated for a short distance.

4522. **Pyralis recisalis,** *Swinh. P. Z. S.* 1885, p. 866; *C. & S.* no. 4463.

Pale reddish brown slightly suffused with fuscous. Fore wing

with waved black ante- and postmedial lines arising from spots on the costa, the former excurved at median nervure, the latter beyond lower angle of cell; a series of dark marginal specks.

Dharmsála specimens are greyer and without the reddish tinge; the lines of fore wing fuscous, and a spot on discocellulars is present.

*Hab.* Dharmsála; Bombay. *Exp.* 22 millim.

SECT. II. Fore wing with veins 4, 5 stalked.

4523. **Pyralis pictalis**, *Curt. Br. Ent.* vi, pl. 503; *C. & S.* no. 4458.
Pyralis pronoealis, *Wlk. Cat.* xix, p. 906.
Pyralis proximalis, *Wlk. Trans. Ent. Soc.* 1862–64, p. 120; *C. & S.* no. 4460.
Myelois bractiatella, *Wlk. Cat.* xxvii, p. 36; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 5; *C. & S.* no. 4443.
Pyralis elachia, *Butl. Ill. Het.* iii, p. 70, pl. 58, fig. 3; *C. & S.* no. 4444.

Head and collar pale brown; thorax and abdomen suffused with fuscous. Fore wing with the base black, bounded by a sinuous white line; the medial area pale brown irrorated with a few black scales; a black cell-spot and some pale specks on costa; a postmedial sinuous white line with the area beyond it red. Hind wing with the base black, bounded by a sinuous white line; the medial area pale brown suffused with fuscous; an irregularly waved white postmedial line with fuscous on its outer edge; the outer area whitish with fuscous on the margin.

*Hab.* Europe; W. Africa; Japan; N.W. Himalayas; Nágas; Ceylon; Burma; Sumatra; Gilbert Islands. *Exp.* 18–22 millim.

4524. **Pyralis ravolalis**, *Wlk. Cat.* xix, p. 898; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 15; *C. & S.* no. 4462.

♀. Differs from *pictalis* in the head, thorax, and abdomen being paler. Fore wing with the basal area grey, some rufous at base and on inner edge of the antemedial line, which is more oblique; the postmedial line incurved at middle instead of excurved, oblique and terminating at outer angle. Hind wing with the postmedial line running out to near the margin from veins 4 to 2, then bent in to near the antemedial line; a series of prominent black specks on apical part of margin.

*Hab.* Ceylon; Borneo. *Exp.* 20 millim.

4525. **Pyralis funebralis**, *Warr. A. M. N. H.* (6) xvi, p. 464.

♀. Fuscous brown with a grey tinge. Fore wing with the basal area rather darker and bounded by a sinuous white line; a dark discocellular spot; some white specks on medial part of costa, and a white patch at the origin of the obsolescent postmedial line, which is excurved between veins 6 and 2. Hind wing with the

basal area darker; sinuous ante- and postmedial white lines; the outer area greyer.

*Hab.* Khásis. *Exp.* 30 millim.

4526. **Pyralis elongalis**, *Koll. Hügel's Kaschmir*, iv, p. 493; *C. & S.* no. 4445.
Pyralis mensalis, *Guen. Delt. & Pyr.* p. 120.
Pyralis marmorea, *Butl. Ill. Het.* vii, p. 91, pl. 134, fig. 10.

Differs from *pictalis* in the male having the cilia of antennæ long; the thorax and abdomen less suffused with black. Fore wing with sinuous edge to the basal black patch; the medial area suffused with fuscous brown; the postmedial line more excurved and minutely dentate from vein 6 to 2, the area beyond it suffused with fuscous; a marginal series of dark specks. Hind wing pale fuscous, with traces of a pale waved postmedial line.

One specimen has the medial area of fore wing much suffused with black.

*Hab.* N.W. Himalayas. *Exp.*, ♂ 20–24, ♀ 26–30 millim.

4527. **Pyralis manihotalis**, *Guen. Delt. & Pyr.* p. 121.
Pyralis vetusalis, *Wlk. Cat.* xix, p. 891.
Pyralis gerontesalis, *Wlk. Cat.* xix, p. 896; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 6; *C. & S.* no. 4447.
Sacatia laudatella, *Wlk. Cat.* xxvii, p. 124.
Pyralis despectalis, *Wlk. Cat.* xxxiv, p. 1243.
Pyralis miseralis, *Wlk. Cat.* xxxiv, p. 1244.
Pyralis achatina, *Butl. Ent. Mo. Mag.* xiv, p. 49.

Differs from *elongalis* in the ground-colour being pale rufous suffused with fuscous. Fore wing with the basal patch dark rufous; the postmedial line much less excurved beyond the cell; the outer area not darker than the medial area. Hind wing pale rufous suffused with fuscous and with fuscous inside the pale dentate medial line.

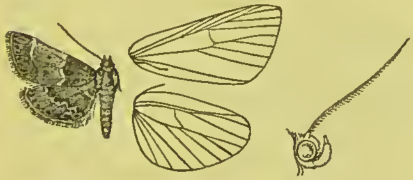

Fig. 87.—*Pyralis manihotalis*, ♂. $\frac{1}{1}$.

Pupates in a very open network of black silk.

*Hab.* Neotropical, Oriental, and Australian regions. *Exp.*, ♂ 16, ♀ 22 millim.

4528. **Pyralis fumipennis**, *Butl. Ill. Het.* vii, p. 91, pl. 134, fig. 11.
Pyralis minimalis, *Hmpsn. Ill. Het.* ix, p. 159, pl. 171, fig. 18.

Differs from *pictalis* in the thorax and base of fore wing being purplish red, the latter with the white line bounding it oblique at costa; the medial area suffused with fuscous at inner margin; the outer red area wider, ochreous at apex and with traces of silvery submarginal band and line. Hind wing more suffused with fuscous on medial area.

The form *minimalis* from Ceylon is small with the rufous areas darker.

*Hab.* Simla; Dharmsála; Ceylon. *Exp.* 18 millim.; *minimalis* 12 millim.

4529. **Pyralis subresectalis,** *Snell. Trans. Ent. Soc.* 1890, p. 565.

♀. Pale olive-brown. Fore wing with the apex produced and acute; an indistinct slightly curved pale antemedial line; a black speck at upper angle of cell; a pale incurved postmedial line, with the area beyond it bright red; the cilia pale, red at apex. Hind wing fuscous suffused with rufous; traces of dark antemedial and medial lines; some dark specks on margin at apex. Underside with cell-speck and pale waved postmedial line to both wings.

*Hab.* Sikhim. *Exp.* 24 millim.

4530. **Pyralis regalis,** *Schiff. Wien. Verz.* p. 124.
Pyralis pulchellalis, *Mill. Cat. Lép. Alpes-Marit.* pt. 2, p. 214 (1873).
Pyralis princeps, *Butl. Ill. Het.* vii, p. 91, pl. 134, fig. 12.

Head and collar fulvous; thorax and abdomen purplish fuscous. Fore wing bright purple, with a large triangular golden-yellow and orange patch from middle of costa to apex, extending down to vein 2, inwardly edged by a line with a dark-edged silvery-white band on it from costa to veiu 2; a sinuous postmedial line with white spot on it from costa to vein 6. Hind wing purple, with dark-edged sinuous white ante- and postmedial lines, the latter with diffused fuscous on its inner edge; the outer area violaceous with some fuscous on the margin.

*Hab.* S. Europe; Amur; Japan; Dharmsála. *Exp.* 22 millim.

## Genus TEGULIFERA.

Tegulifera, *Saalm. Ber. Senck. Ges.* 1879–80, p. 305.
Peucela, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 47.

Type, *T. rubicundalis*, Saalm., from Nossi-Bé.

*Range.* Neotropical region; Tunis; S. Africa; Madagascar; India, Ceylon, and Burma; Borueo.

Palpi upturned, the 2nd joint thickly scaled and reaching vertex of head, the 3rd short; maxillary palpi minute; autennæ of male serrate and fasciculate; tibiæ moderately hairy, the spurs long. Fore wing rather long and narrow; vein 3 from before end of cell; 4, 5 approximated for nearly one-third length; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from angle of cell; 4, 5 approximated for about one-third length; 6, 7 on a short stalk.

Sect. I. (*Peucela*). Patagia of male not extending beyond metathorax.

4531. **Tegulifera faviusalis,** *Wlk. Cat.* xix, p. 907.
Pyralis drapesalis, *Wlk. Cat.* xix, p. 909.
Pyralis nonusalis, *Wlk. Cat.* xix, p. 909.

Pyralis platymitris, *Butl. P. Z. S.* 1883, p. 166; *C. & S.* no. 4459.
Pyralis pallivittata, *Moore, Lep. Atk.* p. 206; *C. & S.* no. 4456.
Orthopygia atomosalis, *Warr. A. M. N. H.* (6) xvi, p. 465.
Peucela rubrifuscalis, *Warr. A. M. N. H.* (6) xvii, p. 461.

Head, thorax, and abdomen pale red-brown irrorated with black. Fore wing with the basal area dark red-brown, followed by an indistinct curved dark line; the medial area ochreous irrorated with black; a black cell-spot; the outer area dark red-brown, with a sinuous postmedial line parallel to its inner edge. Hind wing ochreous irrorated with black; subbasal and medial curved dark lines; cilia of both wings with pale bases and pink tips.

Fig. 88.—*Tegulifera faviusalis*, ♂. ½.

*Hab.* N.W. Himalayas; Sikhim; Margharita; Assam; Nágas; Borneo. *Exp.*, ♂ 24, ♀ 26 millim.

4532. **Tegulifera pallidibasalis**, n. sp.

♀. Differs from *platymitris* in being olive or pink. Fore wing with the basal area concolorous; the antemedial line sinuous; the outer area olive or pink at costa and inner margin, and with no line parallel to its inner edge. Hind wing with the medial line sinuous below vein 2.

*Hab.* Nilgiris (*Hampson*). *Exp.* 24 millim. Type in B. M.

4533. **Tegulifera castanealis**, n. sp.

♀. Reddish chestnut. Fore wing with black discocellular speck: a postmedial pale line excurved between veins 6 and 2; a marginal series of black specks; cilia black at base, crimson at tips. Hind wing slightly irrorated with black; a marginal series of black specks; underside with pale curved submarginal line.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 28 millim. Type in B. M.

4534. **Tegulifera rosealis**, n. sp.

♀. Fleshy pink; palpi fuscous; tarsi banded black and white. Fore wing with the costa black with white specks on it; traces of a postmedial line; the wing irrorated with a few black scales; a marginal series of black specks. Hind wing bright pink prominently irrorated with black; a curved black medial line; both wings with the cilia black with a pink line through them. Underside of fore wing with postmedial black band outwardly oblique from costa to vein 4; the apical area black.

*Hab.* Bhután (*Dudgeon*); Margharita, Assam (*Doherty*). *Exp.* 16 millim. Type in coll. Elwes.

**4535. Tegulifera rufifascialis**, n. sp.

♂. Ochreous; antennæ blackish. Fore wing slightly suffused with flesh-pink; a rufous fascia on median nervure becoming a dark-brown wedge-shaped mark from lower angle of cell to outer margin; a slight subcostal rufous fascia and some dark specks on costa towards apex; the area at outer angle from middle of inner and outer margins dark brown with slight dark streaks above it. Hind wing slightly suffused with fuscous towards outer margin.

*Hab.* Nágas, 6000 feet (*Doherty*). *Exp.* 32 millim. Type in coll. Elwes.

**4536. Tegulifera subolivescens**, *Warr. A. M. N. H.* (6) xvi, p. 464.

♂. Pale ochreous irrorated with fuscous; abdomen with black band on basal segment and black lateral bands on the next three segments. Fore wing with the basal area suffused with fuscous, leaving a pale band on inner side of the antemedial line, which is angled on median nervure; a black discocellular spot; a minutely dentate dark-edged pale postmedial line bent inwards at vein 2; a marginal series of dark specks. Hind wing pale, suffused with fuscous towards outer margin; a minutely dentate pale submarginal line.

The typical Khási form is more olive-green in tone.

*Hab.* Khásis; Ceylon. *Exp.* 18 millim.

SECT. II. (*Tegulifera*). Patagia of male extending well beyond metathorax.

**4537. Tegulifera psamathopis**, *Meyr. Trans. Ent. Soc.* 1894, p. 11.

♂. Fuscous brown irrorated with fuscous; head slightly ochreous. Fore wing with the costa fuscous. Both wings with oblique fuscous postmedial line; the base of cilia rather darker than extremities.

*Hab.* Shán States. *Exp.* 26 millim.

## Genus STEMMATOPHORA.

Stemmatophora, *Guen. Delt. & Pyr.* p. 129 (1854).
Maradana, *Moore, Lep. Ceyl.* iii, p. 57 (1884).
Koremalepis, *Hmpsn. Ill. Het.* viii, p. 129 (1891).

Type, *S. combustalis*, F. R., from Europe.
*Range.* S. Europe; S. Africa; Japan; Oriental region to Celebes.

Palpi upturned and reaching vertex of head, the 2nd joint fringed with hair in front, the 3rd minute; maxillary palpi minute; antennæ of male with fascicles of long cilia; tibiæ somewhat hairy, the outer spurs short. Fore wing short and broad; the apex rectangular; vein 3 from before angle of cell; 4, 5 from angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

SECT. I. (*Stemmatophora*). Male with the tegulæ hardly reaching beyond the metathorax.

4538. **Stemmatophora fuscibasalis**, *Snell. Tijds. v. Ent.* xxiii, p. 199; xxvi, p. 121, pl. 6, figs. 3, 3 *a*.
Pyralis umbrosalis, *Swinh. Trans. Ent. Soc.* 1890, p. 291.

Rufous and ochreous. Fore wing dark rufous with waved antemedial pale line, with the costal and inner areas beyond it ochreous as far as the postmedial series of pale specks, which are often developed into a dentate line. Hind wing fuscous brown, with curved ante- and postmedial pale lines, the latter minutely dentate from the costa to vein 4.

*Hab.* Formosa; Bangalore; Burma; Celebes. *Exp.* 24–28 millim.

4539. **Stemmatophora carnealis**, n. sp.

Pale yellowish brown suffused with pink and irrorated with fuscous; abdomen dark at extremity. Fore wing with sinuous ochreous ante- and postmedial lines expanding into spots on costa; a dark discocellular spot; the medial part of costa with black specks. Hind wing paler and yellower, with pale-edged dark curved postmedial line; a dark line at base of cilia.

*Hab.* E. Pegu (*Doherty*). *Exp.*, ♂ 24, ♀ 30 millim. Type in coll. Elwes.

4540. **Stemmatophora pallidella**, n. sp.

Pale ochreous with a slight reddish tinge and fuscous suffusion. Fore wing with the veins more or less prominently irrorated with fuscous; a dark discocellular speck; an oblique fuscous line, obsolescent and curved inwards to costa near apex, widening and often with another line inside it near middle of inner margin; a dark marginal line. Hind wing paler, with more or less developed oblique fuscous postmedial line.

*Hab.* Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

4541. **Stemmatophora pseudaglossa**, n. sp.

♂. Pale ochreous irrorated and suffused with dark purplish red. Fore wing with dark red basal patch; a sinuous antemedial line expanding into a patch at costa; a discocellular speck; a postmedial line expanding into a patch at costa, much excurved and minutely dentate beyond end of cell; a marginal series of specks. Hind wing white.

*Hab.* Ceylon (*Pole*). *Exp.* 14 millim. Type in B. M.

4542. **Stemmatophora sanguifusa**, n. sp.

♀. Head brownish yellow; thorax crimson, with some leaden-coloured scales; abdomen ochreous, with some crimson and leaden

colour at base. Fore wing olive; the costal area crimson to beyond middle, with a series of ochreous specks on costa; an antemedial black line and black discocellular spot; outer area crimson indented at vein 6. Hind wing crimson, with black antemedial and medial lines; the anal angle and cilia of both wings ochreous.

*Hab.* Ceylon (*Green*). *Exp.* 24 millim. Type in B. M.

4543. **Stemmatophora albiguttata**, *Warr. A. M. N. H.* (6) vii, p. 496.

Dark purplish red; head ochreous. Fore wing with slightly sinuous antemedial white line; the medial part of costa black with white specks; a postmedial white spot from costa to vein 5, with an obscure slightly sinuous fuscous and white line from it to inner margin. Hind wing with dark-edged pale slightly sinuous ante- and postmedial lines.

*Hab.* Japan; Khásis. *Exp.* 18 millim.

4544. **Stemmatophora herculialis**, n. sp.

♀. Differs from *albiguttata* in being deeper purple; the head concolorous; both wings with dark ante- and postmedial lines; the cilia purple at base, golden yellow at tip; fore wing with the postmedial white spot broader at costa.

*Hab.* Nágas (*Doherty*). *Exp.* 20 millim. Type in coll. Elwes.

4545. **Stemmatophora costinotalis**, n. sp.

♀. Dark fuscous slightly suffused with red; both wings with the ante- and postmedial dark lines hardly traceable; fore wing with triangular white spot on costa beyond middle. Underside of hind wing with curved pale postmedial line.

*Hab.* Sikhim (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

4546. **Stemmatophora rivulata**, *Moore, Lep. Ceyl.* iii, p. 58, pl. 150, fig. 14; *C. & S.* no. 1910.

Vinous red irrorated with black. Fore wing with ante- and postmedial almost straight pale lines, the former with slight dark outer edge, the latter with dark inner edge; a dark cell-spot; some pale specks on middle of costa. Hind wing more fuscous; a pale curved postmedial line; both wings with a pale line at base of cilia.

*Hab.* Ceylon. *Exp.*, ♂ 24, ♀ 32 millim.

SECT. II. (*Coremalepis*). Male with the tegulæ extending well beyond metathorax.

4547. **Stemmatophora tactilis**, *Swinh. Trans. Ent. Soc.* 1890, p. 290.
Koremalepis scopula, *Hmpsn. Ill. Het.* viii, p. 129, pl. 154, figs. 2 & 15.

Fig. 89.
*Stemmatophora tactilis*, ♂. 1/1.

Differs from *rivulata* in being brighter vinous red. Fore wing without the dark cell-spot and edges to the lines. Hind wing with pale antemedial line approaching the postmedial line at inner margin.
*Hab.* Sikhim; Nilgiris; Burma. *Exp.*, ♂ 28, ♀ 34 millim.

4548. **Stemmatophora bicoloralis**, *Leech, Entom.* 1889, p. 65, pl. 4, fig. 17.
Pyralis dulciculalis, *Swinh. P. Z. S.* 1889, p. 418; *Hmpsn. Ill. Het.* viii, pl. 156, fig. 13.

♂. Pale pinkish brown; patagia dark at tips. Fore wing with an indistinct pale curved antemedial line with some red on its edge; a black cell-spot; some black specks on medial part of costa; a pale slightly sinuous postmedial line, with the area beyond it suffused with red. Hind wing suffused with red and slightly irrorated with black; a pale curved postmedial line.
*Hab.* Japan; Mahableshwar; Nilgiris. *Exp.* 22 millim.

4549. **Stemmatophora laticincta**, n. sp.

♀. Head and thorax reddish ochreous; abdomen fuscous with white segmental lines. Fore wing reddish ochreous; an indistinct medial line angled to lower end of cell and with a diffused band inside it from cell to inner margin, where it is widest; some dark specks on costa; the outer third of wing fuscous with oblique inner edge. Hind wing ochreous, with indistinct medial line merged in the outer fuscous area except towards inner margin. Underside with a bright ochreous patch on costa of fore wing beyond middle.
*Hab.* Dharmsála (*Hocking*). *Exp.* 18 millim. Type in B. M.

4550. **Stemmatophora monostæchalis**, *Warr. A. M. N. H.* (6) vii, p. 497.

♀. Fuscous black, the head and collar fulvous. Fore wing with slightly curved medial white band; an indistinct postmedial ochreous spot on costa. Underside of hind wing with traces of a submarginal grey line.
*Hab.* Dharmsála. *Exp.* 20 millim.

Sect. III. Male with the patagia extending almost to end of abdomen.

4551. **Stemmatophora punctimarginalis**, n. sp.

♂. Pale ochreous irrorated with black; the patagial tufts and abdomen not irrorated. Fore wing with the basal area thickly irrorated and with a vinous patch on it; a black discocellular

lunule; the medial part of costa with black and white specks; an obliquely sinuous diffused black postmedial band with obscure line parallel to its inner edge; a marginal series of black specks. Hind wing pale; traces of a subbasal oblique line; a minutely waved curved submarginal line; the marginal area thickly irrorated and with a marginal series of black specks.

*Hab.* Bernardmyo, Burma (*Doherty*). *Exp.* 18 millim. Type in coll. Elwes.

## Genus LARICE.

Larice, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 640.

Type, *L. phycidalis*, Guen.

*Range.* N.W. Himalayas; Burma.

Proboscis small; palpi upturned, the 2nd joint fringed with long hair in front and reaching vertex of head, the 3rd long and naked; maxillary palpi well developed and triangularly scaled; antennæ of male bipectinated with short branches; tibiæ slightly hairy. Fore wing long and narrow; vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4552. **Larice phycidalis**, *Guen. Delt. & Pyr.* p. 121; *C. & S.* no. 4457.
Larice swinhoei, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 640.

Grey. Fore wing with the basal area red-brown with white edge; the medial area grey; the outer area pale red-brown, its inner edge oblique and nearly joining the basal red area at inner margin; a white postmedial line excurved between veins 2 and 5.

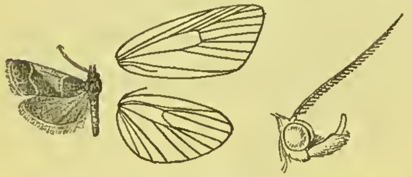

Fig. 90.—*Larice phycidalis*, ♂. ½.

*Hab.* Kulu; E. Pegu. *Exp.* 16 millim.

## Genus TAMRACA.

Tamraca, *Moore, Lep. Ceyl.* iii, p. 554 (1887).

Type, *T. torridalis*, Led.

*Range.* China; India, Ceylon, and Burma; Malayan subregion to Celebes.

Proboscis minute; palpi oblique, the 3rd joint porrect, thickly clothed with hair and reaching well beyond the minute maxillary palpi and sharp frontal tuft; antennæ of male with short fasciculate branches; patagia of male reaching end of metathorax, with a tuft of long hair below them; tibiæ hairy. Fore wing with the costa nearly straight, the outer margin somewhat excised towards outer angle; vein 3 from before angle of cell; 4, 5 approximated

for one-third length; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 hardly approximated at base; 6, 7 from upper angle.

4553. **Tamraca torridalis**, *Led. Wien. ent. Mon.* vii, pp. 342 & 457, pl. 6, fig. 15; *Moore, Lep. Ceyl.* iii, pl. 215, figs. 7, 8; *C. & S.* no. 4253.
Varnia incerta, *Wlk. Cat.* xxxiii, p. 829; *C. & S.* no. 2213.

Head brownish; thorax purplish; abdomen purplish and fuscous. Fore wing brownish ochreous, suffused with purplish red at base and on inuer margin, and fiery red on medial area below cell and on outer area; a curved dark antemedial line; a dark cell-spot and incurved postmedial dark line with pale inner edge. Hind wing suffused with purplish red and fuscous on costal half and with fiery red on inner half; an antemedial yellow line from median nervure to inner margiu; a triangular white spot below lower angle of cell; a postmedial line incurved from apex to vein 5, then with yellow on its edge, waved and angled to near margin at vein 2; both wings with the margin and cilia purplish fuscous. Underside much paler, with the base of both wiugs dark.

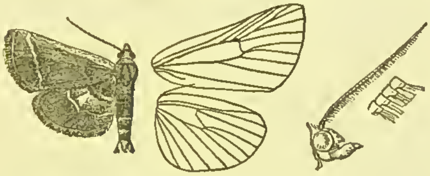
Fig. 91.—*Tamraca torridalis*, ♂. 1/1.

*Hab.* Chiua; N.W. Himalayas; Nágas; Bombay; Ceylon; Burma; Java; Celebes. *Exp.* 24–36 millim.

## Genus HERCULIA.

Herculia, *Wlk. Cat.* xix, p. 807 (1859).
Cisse, *Wlk. Cat.* xxvii, p. 125 (1863).
Buzala, *Wlk. Cat.* xxvii, p. 129.
Ocrasa, *Wlk. Cat.* xxxiv, p. 1212 (1865).
Orthopygia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 29.
Dolichomia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 30.
Trichauctenia, *Warr. A. M. N. H.* (6) ix, p. 173 (1891).

Type, *H. marthalis*, Wlk.
*Range.* Universally distributed.

Palpi thickly scaled, the 2nd joint upturned and reaching vertex of head, the 3rd porrect; maxillary palpi filiform; antennæ of male minutely ciliated; the patagia of male reaching beyond the metathorax; tibiæ moderately hairy. Fore wing with vein 3 from end of cell; 4, 5 approximated for about one-third length; 10, 11 free. Hiud wing with vein 3 from augle of cell; 4, 5 approximated for about one-third length; 6, 7 stalked.

The male of the section *Ocrasa* has a tuft of hair from the base of fore femur.

SECT. I. (*Herculia*). Patagia of male reaching slightly beyond metathorax.

4554. **Herculia imbecilis**, *Moore, Lep. Ceyl.* iii, p. 264; *C. & S.* no. 4450.
Pyralis incongrua, *Butl. P. Z. S.* 1886, p. 383, pl. 35, fig. 5; *C. & S.* no. 4451.

Pale olive-grey. Fore wing with the costa reddish ochreous; a slightly curved antemedial pale line and almost straight postmedial line; a dark speck at end of cell. Hind wing with nearly straight ante- and postmedial pale lines.

*Hab.* N.W. Himalayas; Nilgiris; Ceylon; Java; Celebes; Fiji. *Exp.*, ♂ 30, ♀ 34 millim.

4555. **Herculia tenuis**, *Butl. P. Z. S.* 1880, p. 681.
Spilodes rhodocryptalis, *C. & S.* no. 4145, *nec Wlk.*

Differs from *imbecilis* in being pale reddish brown; the lines of both wings fuscous; hind wing with the antemedial line more oblique and approaching the postmedial line towards inner margin.

*Hab.* Brazil; S. Africa; Formosa; Poona; Ceylon. *Exp.* 26 millim.

4556. **Herculia rudis**, *Moore, Lep. Atk.* p. 205; *C. & S.* no. 4508.

♀. Differs from *tenuis* in the head, thorax, and fore wing being suffused with pinkish, the antemedial line with ochreous inner edge, the postmedial with ochreous outer edge; fore wing with a dark discocellular spot and yellow specks on medial part of costa.

One specimen has the postmedial line of fore wing slightly excurved from vein 6 to 3, and the hind wing paler.

*Hab.* Sikhim. *Exp.* 30 millim.

4557. **Herculia nigrivitta**, *Wlk. Cat.* xxvii, p. 125.
Buzala fuscicosta, *Wlk. Cat.* xxvii, p. 130.
Asopia fuscicostalis, *Snell. Tijd. v. Ent.* xxvi, p. 122, pl. 6, fig. 4.

♂. Pale rufous; head fuscous black. Fore wing with the costal area smoky black, with pale ante- and postmedial spots from which arise slightly waved lines; a black speck at upper angle of cell. Hind wing slightly irrorated with fuscous and with the inner area darker rufous; slightly waved dark ante- and postmedial lines.

*Hab.* Burma; Borneo. *Exp.* 26 millim.

4558. **Herculia albolinealis**, *Hmpsn. Ill. Het.* viii, p. 130, pl. 154, fig. 10.

♀. Black-brown slightly irrorated with grey and red scales. Fore wing with some black and white specks on costa; a slightly

sinuous oblique white antemedial line; a postmedial white line excurved between veins 6 and 2. Hind wing with indistinct white ante- and postmedial sinuous lines; both wings with a white line at base of cilia.

*Hab.* Nilgiris. *Exp.* 20 millim.

4559. **Herculia aurocilialis**, *Hmpsn. Ill. Het.* viii, p. 130, pl. 154 fig. 19.

♀. Dark purplish brown, with the red ground-colour only faintly showing in places. Fore wing with ante- and postmedial indistinct dark lines approaching each other towards inner margin of hind wing; cilia bright golden yellow.

*Hab.* Nilgiris. *Exp.* 36 millim.

4560. **Herculia ochreicilia**, *Hmpsn. Ill. Het.* viii, p. 130, pl. 154, fig. 3.

♂. Dark vinous brown; hind wing dark red; both wings with fine waved ante- and postmedial white lines; some pale specks on costa of fore wing; cilia very pale yellow.

*Hab.* Nilgiris. *Exp.* 22 millim.

4561. **Herculia pernigralis**, *Rag. Ann. Soc. Ent. France*, 1891, p. 32.

♂. Very dark purplish red; abdomen tinged with ochreous towards extremity; both wings with indistinct dark, slightly sinuous ante- and postmedial lines nearly meeting on inner margin of hind wing, the latter arising from an ochreous spot on costa of fore wing, on which also are some ochreous specks between the two lines; an obscure discocellular lunule; the cilia of both wings ochreous. Underside with postmedial grey-edged line. Tarsi ochreous.

*Hab.* Ceylon; Rangoon. *Exp.* 14 millim.

4562. **Herculia marthalis**, *Wlk. Cat.* xvii, p. 270.
Herculia bractealis, *Wlk. Cat.* xix, p. 808; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 2; *C. & S.* no. 4512.

Scarlet suffused with pink. Fore wing with slightly curved antemedial fuscous lines and sinuous postmedial line; some yellow specks on medial part of costa, often expanding into spots at the origin of the lines. Hind wing redder, with antemedial and medial fuscous lines approaching each other towards inner margin; cilia of both wings golden yellow.

Some specimens are more or less completely suffused with fuscous.

*Hab.* Ceylon; Borneo. *Exp.*, ♂ 24–30, ♀ 30–36 millim.

4563. **Herculia igniflualis**, *Wlk. Cat.* xvii, p. 268; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 10; *C. & S.* no. 4513.
Pyralis dorcasalis, *Wlk. Cat.* xvii, p. 271.
Pyralis healealis, *Wlk. Cat.* xix, p. 902.

Differs from *marthalis* in being suffused with brown; the costa and outer margin of fore wing and the hind wing pinkish; the ante- and post-medial lines indistinct, the latter with pale outer edge; fore wing with dark cell-speck.

*Hab.* Nilgiris; Ceylon; Borneo. *Exp.* 22–24 millim.

Fig. 92.—*Herculia ignifluàlis*, ♂. ½.

4564. **Herculia suffusalis**, *Wlk. Cat.* xxxiv, p. 1235; *C. & S.* no. 4466.

Differs from *ignifluàlis* in being purplish fuscous; the anal tuft orange; wings with the lines almost obsolete and with large yellow spots at their origin on costa of fore wing.

*Hab.* Sind; Poona; Calcutta; Rangoon. *Exp.* 26 millim.

Sect. II. (*Dolichomia*). Patagia of male reaching far beyond the metathorax.

4565. **Herculia dharmsalæ**, *Butl. Ill. Het.* vii, p. 92, pl. 134, fig. 13.

Head and thorax pale reddish brown; abdomen fuscous; the anal tuft rufous. Fore wing with the basal area rufous, bounded by a straight white line; the medial area pale brown, with minute dark cell-speck and specks on costa, and bounded by a white line which is slightly bent inwards at vein 4, the area beyond it rufous. Hind wing pale fuscous, with indistinct white medial line, the area beyond it slightly tinged with rufous; a pale line at base of cilia.

*Hab.* Dharmsála. *Exp.*, ♂ 22, ♀ 26 millim.

4566. **Herculia fuscalis**, *Hmpsn. Ill. Het.* viii, p. 128, pl. 154, fig. 5.

♀. Greyish brown irrorated with fuscous; wings irrorated with red scales. Fore wing with the base of costa blackish; an indistinct pale antemedial line angled below costa; an indistinct cell-spot; a pale sinuous postmedial line bent inwards below vein 2. Hind wing with indistinct pale antemedial line; both wings with pale line at base of cilia.

*Hab.* Nilgiris. *Exp.* 20–24 millim.

4567. **Herculia sericea**, *Warr. A. M. N. H.* (6) vii, p. 499.

♂. Brownish grey; head reddish. Fore wing slightly irrorated with fulvous; the costa pink, with some pale specks at middle; nearly straight fulvous ante- and postmedial lines; a fulvous cell-spot. Hind wing whitish; traces of an oblique antemedial line from discocellulars to inner margin; a slightly curved fuscous postmedial line; the outer area slightly irrorated with fuscous; both wings with a dark marginal line.

*Hab.* Sikhim. *Exp.*, ♂ 30–32, ♀ 44 millim.

## Genus EURYZONA, nov.

Type, *E. latifascia*, Hmpsn.
*Range.* W. India.

Palpi upturned and somewhat oblique, reaching beyond the sharp frontal tuft, the 2nd joint thickly scaled; maxillary palpi filiform; antennæ of male ciliated, the basal joint dilated; tibiæ of male with the outer spurs short. Fore wing with the apex rounded; the inner margin lobed near base; vein 3 from near angle of cell; 4, 5 well separated; 6 from upper angle; 9 given off from 8 before 7; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 well separated; 6, 7 from upper angle.

4568. **Euryzona latifascia**, *Hmpsn. Ill. Het.* viii, p. 129, pl. 154, fig. 8.

Grey suffused with brown; abdomen irrorated with black. Fore wing with the base of costa and lobe of inner margin irrorated with black in male; an antemedial black line angled on median nervure and bent outwards below vein 1; a postmedial line angled outwards on vein 5 and inwards on vein 2; the area between the two lines irrorated with black, with a prominent black discocellular spot and pale specks on costa; a series of black marginal specks. Hind wing fuscous, with traces of cell-speck and curved medial line, which are more prominent on underside; a black line through base of cilia.

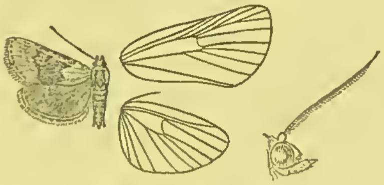

Fig. 93.—*Euryzona latifascia*, ♂. 1/1.

*Hab.* Mahableshwar; Nilgiris. *Exp.*, ♂ 22, ♀ 24 millim.

## Genus RHYNCHOPYGIA, nov.

Type, *R. purpureorufa*, Hmpsn.
*Range.* Ceylon.

Palpi oblique and thickly scaled, the 3rd joint porrect; maxillary palpi minute and filiform; a slight frontal tuft; antennæ of male minutely serrate and fasciculate; tibiæ slightly hairy. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 9 given off from 8 before 7. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4569. **Rhynchopygia purpureorufa**, n. sp.

♂. Dark purple-red; vertex of head and base of abdomen yellowish. Fore wing with large orange ante- and postmedial spots on the costa, from which arise sinuous lines which are sometimes interrupted. Hind wing with irregularly sinuous antemedial and medial orange lines conjoined below cell; both wings with the margin dark purple; the cilia orange.

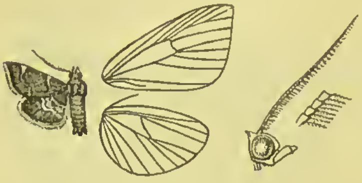

Fig. 94.
*Rhynchopygia purpureorufa*, ♂. 1/1.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

## Genus TRIPHASSA.

Triphassa, *Hübn. Samml. exot. Schmett.* i, p. 26 (1818).

Type, *T. stalactitis*, Hübn., from S. Africa.
*Range.* S. Africa; India; Ceylon.

Palpi oblique, the 2nd joint thickly scaled, the 3rd porrect and minute; maxillary palpi filiform; a sharp frontal tuft; antennæ of male with a slight process at end of basal joint, the shaft set on at an angle and with very long cilia; mid tibiæ fringed with hair. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

SECT. I. Patagia of male bearing long tufts of scales reaching to middle of abdomen.

4570. **Triphassa ochrealis**, *Hmpsn. Ill. Het.* ix, p. 158, pl. 171, fig. 5.

Ochreous brown; male with a tuft of black scales at end of patagia; abdomen with some black before the anal tuft. Fore wing slightly irrorated with fuscous; some pale and dark specks on costa; a pale slightly curved antemedial line; a minutely dentate postmedial oblique line angled inwards below vein 2, the area between the two lines pale fuscous; a series of black marginal striæ. Hind wing paler with a slight reddish tinge; a fuscous minutely dentate medial line from veins 6 to 2, with traces of a line beyond it; some black specks on margin and a black line through the cilia.

*Hab.* Ceylon. *Exp.* 20 millim.

4571. **Triphassa metaxantha**, n. sp.

♂. Differs from *ochrealis* in the head, thorax, and fore wing being olive in tone; hind wing reddish orange; postmedial line of both wings evenly curved; cilia rufous.

*Hab.* Ceylon (*Yerbury*). *Exp.* 24 millim. Type in B. M.

4572. **Triphassa vulsalis**, *Wlk. Cat.* xviii, p. 671; *Hmpsn. Ill. Het.* ix, pl. 171, fig. 9; *C. & S.* no. 4510.

Fig. 95.—*Triphassa vulsalis*, ♂. $\frac{3}{2}$.

Differs from *ochrealis* in the head, thorax, and fore wing being dull pink, mid tarsi pure white. Fore wing with the ante- and postmedial lines dark, the latter not dentate or angled below vein 2, the area between them not dark; a black speck at end of cell. Hind wing with curved postmedial line; the marginal area suffused with pink.

*Hab.* Ceylon. *Exp.* 16 millim.

4573. **Triphassa imbutalis**, *Wlk. Cat.* xxxiv, p. 1283; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 9; *C. & S.* no. 4351.

♀. Bright pink; the palpi orange; abdomen and hind wing straw-yellow. Fore wing with pale and dark specks on the costa; nearly straight ante- and postmedial dark lines; a dark cell-speck and marginal line.

*Hab.* Ceylon. *Exp.* 18 millim.

4574. **Triphassa luteicilialis**, n. sp.

♀. Purplish red; anal tuft bright pink; wings irrorated with black. Fore wing with antemedial and postmedial pale and dark lines excurved at middle; a series of yellow specks on medial part of costa; a black discocellular spot. Hind wing with antemedial and medial pale and dark sinuous lines; both wings with the outer area rather darker; a black marginal line; the cilia golden yellow.

*Hab.* Ceylon (*Pole*). *Exp.* 24 millim. Type in B. M.

SECT. II. Patagia of male not reaching beyond the metathorax.

A. *Mid tibiæ of male moderately fringed with hair.*

4575. **Triphassa zeuxoalis**, *Wlk. Cat.* xxvii, p. 135; *C. & S.* no. 4718 (part.).

Dark purplish rufous suffused with fuscous; male with the anal tuft white, the lateral tufts black. Fore wing with the costal and basal areas dark greyish fuscous; an oblique white line from end of cell to inner margin, expanding at end of cell into a pyriform white mark pointing towards outer margin; one or two white specks beyond upper angle of cell sometimes developed; a sinuous white postmedial line. Hind wing fuscous with traces of a postmedial line; both wings with a white line at base of cilia.

*Hab.* Ceylon. *Exp.* 16 millim.

4576. **Triphassa xylinalis**, *Swinh. P. Z. S.* 1885, p. 865, pl. 57, fig. 17; *C. & S.* no. 4471.

♂. Differs from *zeuxoalis* in being more uniform fuscous black;

no pyriform mark on fore wing; the postmedial line almost obsolete except for a pale spot on costa; the line at base of cilia indistinct.

♀ with the oblique line on fore wing ochreous.

*Hab.* Campbellpur; Poona; Ceylon. *Exp.*, ♂ 12, ♀ 14 millim.

B. *Mid tibiæ of male fringed with very long hair on inner side.*

4577. **Triphassa bilineata,** *Moore, Lep. Ceyl.* iii, p. 555, pl. 215, fig. 11; *C. & S.* no. 4511.

Comaria unilinealis, *Warr. A. M. N. H.* (6) xvii, p. 462.

Pinkish rufous slightly irrorated with black. Fore wing with indistinct pale curved antemedial line; the medial area slightly paler, with a black cell-speck and some specks on costa; a slightly outwardly-oblique postmedial pale line with the area beyond it darker. Hind wing with nearly straight ante- and postmedial pale lines; the basal and outer areas darker than the medial; both wings with a fine pale line at base of cilia, which are almost white except at base.

*Hab.* Mussooree; Ceylon. *Exp.* 20 millim.

## Genus **RHYNCHETERA**, nov.

Type, *R. carnealis*, Hmpsn.

*Range.* Assam.

♂. Palpi porrect, downcurved at extremity and extending rather more than twice the length of head, the 2nd joint fringed with hair above and below; maxillary palpi dilated with hair; frons with a sharp tuft; antennæ serrate and fasciculate; hind tibiæ fringed with long hair, the 1st joint of tarsi with a large tuft of hair on outer side. Fore wing with the apex rectangular; vein 3 from well before end of cell; 4, 5 from angle; 6 from upper angle; 10 from cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle.

♀ with the palpi upturned and naked, the 2nd joint curved and reaching far above vertex of head.

4578. **Rhynchetera carnealis,** n. sp.

Flesh-colour irrorated with black. Fore wing with nearly

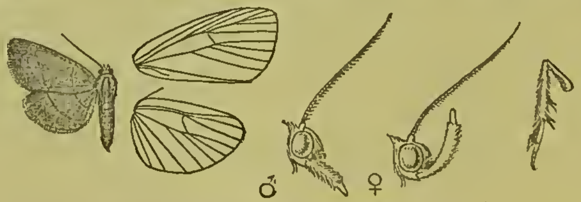


Fig. 96.—*Rhynchetera carnealis*, ♂. $\frac{1}{1}$.

straight ante- and postmedial dark lines. Hind wing paler, with the ante- and postmedial lines meeting at inner margin.

*Hab.* Nágas (*Doherty*). *Exp.*, ♂ 24, ♀ 34 millim. Type in coll. Elwes.

## Genus HYBOLOMA.

Hyboloma, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 99.

Type, *H. nummosalis*, Rag.
*Range.* Assam; Burma; Borneo.

Palpi porrect, extending about four times length of head, curving downwards and inwards, the 2nd joint fringed with hair below, the 3rd rounded and fringed above and below; maxillary palpi large and triangularly scaled; frons with a sharp tuft; antennæ nearly simple; tibiæ smoothly scaled. Fore wing with the costa highly arched before middle, excised beyond it; the apex produced and depressed; the outer margin excised below apex, excurved and somewhat angled at middle; vein 3 from before angle of cell: 4, 5 from angle; 6, 7, 8, 9 stalked; 10, 11 free. Hind wing with the outer margin slightly excised below apex; vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4579. **Hyboloma nummosalis**, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 99, pl. 16, fig. 3.

Pale greyish rufous, palpi tinged with fuscous. Fore wing with indistinct diffused rufous antemedial band, angled below median nervure, then broader; a black discocellular speck; a diffused fuscous submarginal band, dentate inwards on veins 5 and 2, and with series of indistinct grey spots on it, the area beyond it darker rufous except at outer angle. Hind wing suffused with fuscous; an indistinct submarginal fuscous line angled on vein 2. Underside of fore wing and costal half of hind wing much redder; both wings with black discocellular specks.

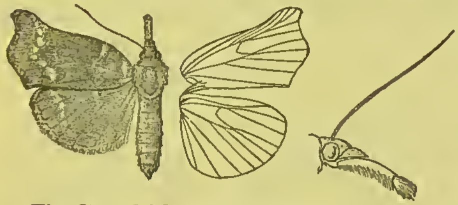

Fig. 97.—*Hyboloma nummosalis*, ♀. $\frac{1}{1}$.

*Hab.* Khásis; Shán States; Borneo. *Exp.* ♂ 27, ♀ 32 millim.

## Genus OMPHALOCERA.

Omphalocera, *Led. Wien. ent. Mon.* 1863, p. 339.
Omphalomia, *Swinh. A. M. N. H.* (6) xiv, p. 140 (1894).

Type, *O. cariosa*, Led., from N. America.
*Range.* N. America; N.E. and W. India; Burma.

Palpi porrect, downcurved, thickly clothed with hair, and reaching well beyond the filiform maxillary palpi and sharp frontal tuft; antennæ thickened; tibiæ slightly hairy; abdomen with dorsal tufts. Fore wing broad, with the costa arched near base and towards apex, which is rounded; male with a large fold on underside at base of costa fringed with long hair; vein 3 from before angle of cell; 4, 5

from angle; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 stalked.

In the typical section the male has a sinus and vesicular tuft of scales on shaft of antennæ.

4580. **Omphalocera accersita**, *Swinh. A. M. N. H.* (6) xiv, p. 140.

Dark rufous suffused with black; palpi black; abdomen yellowish towards extremity. Fore wing suffused with fuscous black; an indistinct minutely dentate subbasal black line; an antemedial line highly angled to lower angle of cell and with more

Fig. 98.—*Omphalocera accersita*, ♀. 1/1.

or less pale rufous between it and the subbasal line; a discocellular black lunule; a postmedial curved series of black specks and rufous striæ on the veins; the apical area suffused with rufous. Hind wing fuscous, with traces of postmedial and submarginal curved lines.

*Hab.* Bhután; Khásis; Khandála. *Exp.*, ♂ 36, ♀ 44 millim.

4581. **Omphalocera canosparsalis**, n. sp.

♀. Head, thorax, and fore wing clothed with rufous, black, and grey scales; abdomen brown suffused with rufous. Fore wing with traces of two dark sinuous antemedial lines; a ferruginous spot with pale edges on discocellulars; a very indistinct minutely dentate double postmedial line bent outwards between veins 5 and 2. Hind wing fuscous; both wings with slight dark marginal specks; the cilia pinkish. Underside of hind wing with traces of double curved minutely dentate postmedial line.

*Hab.* Bernardmyo, Burma (*Doherty*). *Exp.* 40 millim. Type in coll. Elwes.

## Genus TOCCOLOSIDA.

Toccolosida, *Wlk. Cat.* xxvii, p. 14 (1863).

Type, *T. rubriceps*, Wlk.

*Range.* E. Himalayas; Assam; Borneo.

Differs from *Sacada* in the palpi being smoothly scaled; the frons rounded; the antennæ minutely fasciculate and without the tuft on basal joint; male with tufts of long hair arising from beneath the patagia; tibiæ and tarsi slightly fringed with hair; the spurs minute. Fore wing narrow; the outer margin with traces of angulation at vein 4. Hind wing with veins 4, 5 approximated at base.

4582. **Toccolosida rubriceps**, *Wlk. Cat.* xxvii, p. 14; *C. & S.* no. 4730.

Head, thorax, and base of abdomen bright crimson above; abdomen and fore wing dark fuscous with slight red suffusion, the latter with the costa greyish towards apex; an oblique grey line from origin of vein 2 to inner margin before middle and a similar

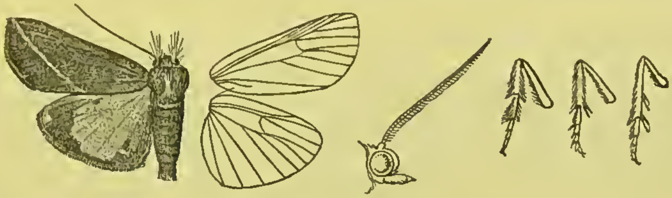

Fig. 99.—*Toccolosida rubriceps*, ♂. 1/1.

line from apex to middle of inner margin. Hind wing bright golden yellow; the costal, apical, and anal areas dark fuscous. Underside with the inner two-thirds of fore wing grey except at outer angle, vein 2 remaining dark.

*Hab.* Sikhim; Bhután; Khásis; Nágas; Borneo. *Exp.*, ♂ 34–40, ♀ 44 millim.

## Genus SACADA.

Sacada, *Wlk. Journ. Linn. Soc.* vi, p. 136 (1862).
Sybrida, *Wlk. Cat.* xxxii, p. 465 (1865).
Paravetta, *Moore, P. Z. S.* 1865, p. 814.
Danaka, *Moore, Lep. Atk.* p. 71 (1879).
Xestula, *Snell. Rom. Mém.* ii, p. 195 (1885).

Type, *S. decora*, Wlk., from Borneo.

*Range.* Amur; Japan; India, Ceylon, and Burma; Borneo.

Palpi porrect, fringed with long hair below, and hardly reaching beyond the sharp frontal tuft; antennæ with a tuft of hair from the basal joint; tibiæ and proximal joints of hind tarsi fringed with long hair; male with a tuft of long hair from thorax below the base of fore wing. Fore wing long and narrow, the apex somewhat produced and outer margin oblique; veins 4, 5 usually stalked; 7, 8, 9 stalked; 10, 11 free. Hind wing ample; veins 4, 5 usually on a short stalk; 6, 7 from upper angle.

SECT. I. Antennæ of male bipectinated with long branches to three-fourths length.

A. (Sacada). *Fore wing of moderate breadth, the outer margin evenly curved; female with veins* 4, 5 *of both wings approximated at base.*

4583. **Sacada inordinata**, *Wlk. Cat.* xxxii, p. 466; *C. & S.* no. 1114.
Datanoides approximans, *Leech, P. Z. S.* 1888, p. 636, pl. 32, fig. 4.

Rufous. Fore wing with a diffused ferruginous patch in interno-median interspace; a medial fuscous line highly angled

and touching at vein 2 the straight oblique postmedial line, which has some ferruginous beyond it; a ferruginous line on discocellulars. Hind wing browner, with traces of dark postmedial line. Underside rufous, with diffused dark postmedial line on both wings.

*Hab.* Japan; Sikhim. *Exp.*, ♂ 46, ♀ 52 millim.

4584. **Sacada unilinealis**, n. sp.

♂. Head, thorax, and abdomen pale rufous irrorated with fuscous; the fringe of hair on fore and mid tibiæ blackish; the tufts on hind tibiæ and tarsi tipped with black. Fore wing pale flesh-colour; the base of costa tinged with fuscous; two black discoidal specks; an indistinct evenly curved postmedial line, the area beyond it darker flesh-colour. Hind wing pale, with faint traces of a curved postmedial line.

*Hab.* Sikhim (*Möller*). *Exp.* 34 millim. Type in coll. Elwes.

B. (Paravetta). *Fore wing narrow.*

a. *Fore wing with the outer margin very slightly angled at vein* 4.

4585. **Sacada constrictalis**, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 75, & 1890, pl. viii, fig. 10.

♂. Differs from *sikkima* in the medial area of fore wing being more ochreous with two discoidal specks; the postmedial line nearly erect from costa to vein 5, where it is much less angled. Hind wing more uniform pale fuscous. Cilia of both wings ochreous, with two black lines through them.

The specimen from Ceylon has a black submarginal patch on vein 2 of hind wing.

*Hab.* Upper Assam; Ceylon. *Exp.* 24 millim.

4586. **Sacada discinota**, *Moore, P. Z. S.* 1865, p. 814, pl. 43, fig. 3; *C. & S.* no. 1158.

Head, thorax, and abdomen dark purplish rufous. Fore wing paler rufous; a bright ferruginous patch below base of cell; a

Fig. 100.—*Sacada discinota*, ♂. $\frac{1}{1}$.

pale antemedial line highly angled in internomedian interspace, with ferruginous in its angle, and outwardly edged with fuscous; a similar postmedial line highly angled at vein 4 and with fuscous

on its inner edge; the area between the two lines pinkish with oblique ferrugiuous reniform spot; a ferruginous patch on costal area beyond the postmedial line. Hind wing pale with au orauge tinge, the margin and cilia redder; traces of a waved submarginal line from vein 2 to inner margin.

*Hab.* Sikhim; Nágas. *Exp.*, ♂ 32–40, ♀ 36–46 millim.

4587. **Sacada pallescens**, n. sp.

♂. Pale rufous. Fore wing with dark irroration; a purplish-rufous spot below base of cell conjoined to a larger patch on inner margin; the antemedial line evenly curved; a speck on discocellulars; the postmedial line slightly curved below costa, then oblique to inner margin, and with some fuscous suffusion beyoud it; cilia dark at tips. Hiud wing ochreous, with indistiuct evenly curved dark postmedial line crossed by a rufous streak on vein 2. Underside ochreous, with rufous suffusiou on basal half of costa of fore wing; both wings with curved postmedial line.

♀ much redder; the hiud wing bright rufous; the patch on basal area of fore wing bright chestnut.

*Hab.* Sikhim; Bhutáu (*Dudgeon*). *Exp.*, ♂ 34, ♀ 44 millim. Type in B. M.

4588. **Sacada flexuosa**, *Snell. Trans. Ent. Soc.* 1890, p. 558.
Sacada inflammealis, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 75, & 1890, pl. viii, fig. 9.

♂. Vinous red suffused with fuscous. Fore wing with the basal area darkest; the lines dark, the first line medial, curved and sinuous; two specks on discocellulars; the second line oblique and straight, with slight trace of angulation at vein 5, approaching the medial line towards inner margin aud with a large yellow patch beyond it from costa to vein 5, forming obscure lunules by the veins on it being streaked with fuscous. Hind wing much paler, with an indistinct curved postmedial line. Uuderside yellower.

♀ much redder, especially the hind wing.

*Hab.* Sikhim; Khásis; Tavoy. *Exp.*, ♂ 32, ♀ 42 millim.

b. *Fore wing with the outer margin more produced and angled at vein 4.*

4589. **Sacada sikkima**, *Moore, Lep. Atk.* p. 70; *C. & S.* no. 1159.

Dark purplish fuscous. Fore wing with a dark rufous oblique baud from the cell near base to the inner margiu at the antemedial line, which is pale, very highly angled in internomedian interspace, and with dark rufous on its inuer edge from the augle to inner margiu; a pale postmedial line sinuous aud with dark rufous beyond it from the costa to vein 5, where it is angled, then very

oblique to inner margin; the outer area darker purplish. Hind wing paler and browner; a pale slightly waved submarginal line from veins 1 *c* to 5.

*Hab.* Sikhim. *Exp.*, ♂ 34, ♀ 48 millim.

SECT. II. (*Danaka*). Antennæ of male serrate and fasciculate; fore wing narrow, with the outer margin evenly curved.

4590. **Sacada pyraliformis**, *Moore, Lep. Atk.* p. 71, pl. 3, fig. 10; *C. & S.* no. 1210.

♂. Dull olive-green. Fore wing with obscure leaden-coloured patch on base of inner margin; a medial leaden band wide at costa, narrowing to inner margin, and with an olive-green cell-spot on it; outer area rather paler. Hind wing greenish fuscous, with indistinct pale submarginal line angled at vein 2; cilia of both wings chequered with fuscous. Underside with the basal area suffused with fuscous as far as the slightly sinuous diffused postmedial line.

*Hab.* Sikhim; Bhután. *Exp.* 32 millim.

4591. **Sacada rufina**, n. sp.

♂. Pale rufous. Fore wing with indistinct outwardly oblique antemedial and inwardly oblique postmedial slightly sinuous dark lines. Hind wing yellowish, redder towards outer margin, and with faint traces of a postmedial dark line, which is more prominent on underside.

*Hab.* Bombay (*Leith*). *Exp.* 30 millim. Type in B.M.

## Genus PARACTENIA.

Paractenia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 642.

Type, *P. rubicundalis*, Swinh.

*Range.* Assam; W. India.

Differs from *Bostra* in the antennæ of male being bipectinated for about two-thirds length; each wing with veins 4, 5 approximated for about one-third length; or fore wing with veins 4, 5 stalked.

SECT. I. Fore wing with veins 4, 5 approximated.

4592. **Paractenia rubicundalis**, *Swinh. P. Z. S.* 1885, p. 864.

Head, thorax, and fore wing bright pink; the last with an indistinct sinuous slightly oblique antemedial line; a minutely waved postmedial line angled inwards at vein 2. Abdomen pale pinkish. Hind wing pale slightly irrorated with fuscous; both wings with minute marginal series of specks.

*Hab.* Karáchi; Poona. *Exp.* 26 millim.

4593. **Paractenia quisqualis**, *Swinh. P.Z.S.* 1885, p. 865, pl. 57, fig. 11; *C. & S.* no. 4461.

♂. Rufous brown irrorated with black. Fore wing with waved ante- and postmedial lines approaching each other below cell; the area between them fuscous black; a black cell-spot. Hind wing ochreous, with traces of a medial line; slight fuscous suffusion towards outer margin; both wings with a prominent series of black marginal specks.

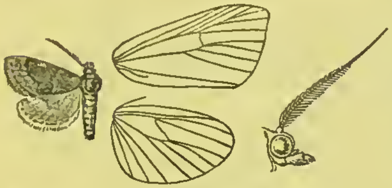

Fig. 101.—*Paractenia quisqualis*, ♂. 1/1.

*Hab.* Poona. *Exp.* 20 millim.

4594. **Paractenia ruptilinealis**, *Warr. A. M. N. H.* (6) xvi, p. 466.

♀. Head, thorax, and abdomen pale rufous. Fore wing with the basal area dark chocolate bounded by a pale sinuous line; the medial area pale rufous bounded by an oblique pale-edged dark slightly sinuous line; some pale specks on costa; outer area chocolate; a pale line at base of cilia. Hind wing pale, with curved dark postmedial line; the outer area slightly suffused with fuscous; a dark marginal line and dark line through the cilia.
*Hab.* Khásis. *Exp.* 20 millim.

Sect. II. Fore wing with veins 4, 5 stalked.

4595. **Paractenia semiochrea**, *Warr. A. M. N. H.* (6) xvi, p. 466.

♀. Head, thorax, and abdomen rufous. Fore wing deep purplish red irrorated with black; pale sinuous black edged ante- and postmedial lines; a black discocellular speck; a pale line at base of cilia, which are dark. Hind wing ochreous, with traces of curved dark medial line; the outer area suffused with fuscous; a pale line at base of cilia.
*Hab.* Khásis. *Exp.* 22 millim.

## Genus PROSARIS.

Prosaris, *Meyr. Trans. Ent. Soc.* 1894, p. 12.

Type, *P. pernigralis*, Meyr.
*Range.* N.E. India; Burma.
Palpi curved downwards, more than twice the length of head, and thickly scaled; maxillary palpi dilated with scales and well developed; a large frontal tuft; proboscis small; antennæ of male with long cilia; tibiæ and proximal joints of tarsi fringed with hair; fore femora with a tuft of hair below. Fore wing somewhat narrow, the apex produced and outer margin oblique; veins 4, 5 not approximated towards origin. Hind wing with vein 3 from near angle of cell; 6, 7 from upper angle; male with a tuft of

long scales on middle of vein 1 *c* on upperside, and a bladder-like swelling at base of vein 8 below.

4596. **Prosaris pernigralis**, *Meyr. Trans. Ent. Soc.* 1894, p. 12 (*nec Rag.*).

♂. Dark purplish rufous; the vertex of head, thorax, and abdomen paler rufous. Fore wing with some rufous below the

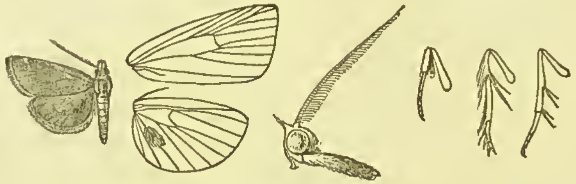

Fig. 102.—*Prosaris pernigralis*, ♂. 1/1.

cell and vein 2; the costal area suffused with bright ferruginous from upper angle of cell to apex, a pale spot on the costa before apex. Hind wing with a large black tuft on middle of vein 1 *c*; a large bright ferruginous patch beyond lower angle of cell diffused outwards to the margin. Underside with the pale spot and ferruginous suffusion on costa of fore wing prominent; both wings with traces of a pale curved submarginal line.

*Hab.* Sikhim; Nágas; Rangoon; Shán States. *Exp.* 20 millim.

## Genus TREBANIA.

Trebania, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 645.

Type, *T. flavifrontalis*, Leech, from China.

*Range.* China; N.E. India.

Proboscis well developed; palpi with the 2nd joint slightly curved upwards, the 3rd rostriform, downcurved, about three times the length of head, and with a thick fringe of downcurved iridescent hair springing from a groove on inner side; maxillary palpi minute; antennæ of female nearly simple; tibiæ moderately hairy. Fore wing short and broad; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 shortly stalked.

Fig. 103.—*Trebania muricolor*, ♂. 1/1.

4597. **Trebania muricolor**, n. sp.

♂. Uniform mouse-brown; back of head with a slight fulvous tinge. Fore wing with traces of outwardly-oblique antemedial dark line; a speck at end of cell; a postmedial dark line highly

excurved from below costa to vein 4. Underside of hind wing with traces of postmedial line.

*Hab.* Sikhim (*Dudgeon*); Nágas (*Doherty*). *Exp.* 32 millim. Type in B. M.

## Genus BOSTRA.

Bostra, *Wlk. Cat.* xxvii, p. 123 (1863).
Scotomera, *Butl. P. Z. S.* 1881, p. 622.
Megalomia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 35.
Comaria, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 639.
Paredra, *Snell. Midd.-Sum.* iv (1), 8, p. 60 (1892).

Type, *B. illusella*, Wlk.

*Range.* Neotropical and Ethiopian regions; Japan; Oriental region.

Palpi thickly clothed with hair, porrect, and the 3rd joint curved downwards; maxillary palpi filiform; a sharp frontal tuft usually present; antennæ of male serrate and fasciculate; tibiæ moderately hairy. Fore wing usually short and broad; veins 3 and 5 from near angle of cell; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

SECT. I. Antennæ of male with strong serrations; fore wing narrow.

4598. **Bostra imperatrix,** *Warr. A. M. N. H.* (6) xvii, p. 462.

♂. Head and thorax very deep red-brown; frons and palpi whitish; abdomen tinged with orange. Fore wing very deep red-brown mixed with black scales, and with a diffused fiery-orange streak in internomedian interspace, and red suffusion between veins of outer area; the costal area dirty white, with some black specks on costa to near apex; indistinct antemedial and oblique postmedial lines defined by whitish below the cell. Hind wing fiery orange, the outer area suffused with red; an oblique postmedial line obsolete except beyond lower angle of cell and near anal angle; the cilia and a marginal line deep red.

*Hab.* Sikhim; Khásis. *Exp.* 32 millim.

4599. **Bostra pallidicosta,** *Hmpsn. Ill. Het.* ix, p. 158, pl. 172, fig. 17.

♂. Bright rufous; head brownish; thorax with the scales tipped with grey. Fore wing with the scales slightly grey-tipped; the costal area grey to near apex; diffused purplish fuscous ante- and postmedial lines, the former angled on median nervure and connected by a streak with the oblique postmedial line; a dark cell-speck. Hind wing pale, suffused with fiery red towards outer margin; a slightly curved rufous postmedial line.

*Hab.* Sikhim; Ceylon. *Exp.* 32 millim.

Sect. II. Antennæ of male with the serrations minute.

A. *Fore wing narrow.*

4600. **Bostra subustalis,** *Led. Verh. zool.-bot. Ges. Wien,* 1855, p. 213, pl. 3, fig. 10.

♂. Pale ferruginous. Fore wing with indistinct oblique antemedial darker line with pale inner edge; a cell-spot; a postmedial line excurved from costa to vein 4 and with pale outer edge; some dark and pale specks on costa. Hind wing with curved postmedial line with pale outer edge; both wings with the cilia dark at tips.

*Hab.* Dharmsála. *Exp.* 22 millim.

B. *Fore wing broad.*

a. (Bostra). *Patagia in male not extending beyond metathorax.*

a'. *Frons with a sharp tuft.*

4601. **Bostra marginata,** *Wlk. Cat.* xxxiii, p. 991.
Paleca rufescens, *Butl. A. M. N. H.* (5) iv, p. 354.
Pyralis assamica, *Moore, Lep. Atk.* p. 205, pl. 7, fig. 5; *C. & S.* no. 4441.

Varies from greyish brown to rufous irrorated with fuscous. Fore wing with the basal area dark and bordered by a slightly curved line; a dark cell-spot; a pale curved postmedial line incurved below vein 4, the area beyond it dark. Hind wing pale; traces of an antemedial line; a slightly curved pale postmedial line with the area beyond it dark.

The Manipur race is large and richly coloured.

*Hab.* Japan; Assam; Manipur; Moulmein; Nilgiris; Borneo. *Exp.*, ♂ 28–36, ♀ 32–44 millim.

4602. **Bostra vibicalis,** *Led. Wien. ent. Mon.* vii, p. 338, pl. 7, fig. 4; *C. & S.* no. 4509.
Pyralis roborealis, *Swinh. P. Z. S.* 1885, p. 865, pl. 57, fig. 1; *C. & S.* no. 4464.
Euclita fortis, *Butl. Ill. Het.* vii, p. 92, pl. 134, fig. 14.
Stemmatophora foliata, *Swinh. P. Z. S.* 1889, p. 418, pl. 44, fig. 5.

Varies from grey-brown irrorated with fuscous to bright rufous and dark purplish fuscous. Fore wing with blackish or pale dark-edged ante- and postmedial lines, the former sinuous and sometimes bent outwards near inner margin, the latter excurved from costa to vein 4, then incurved; a dark cell-spot. Hind wing with dark ante- and postmedial slightly curved lines, which meet at inner margin.

Fig. 104.—*Bostra vibicalis,* ♂. $\frac{1}{1}$.

Some specimens have the area between the lines of fore wing fuscous.

*Hab.* N.W. Himalayas; Bombay; Ceylon; Rangoon. *Exp.* 34 millim.

4603. **Bostra salmo,** *Hmpsn. Ill. Het.* viii, p. 128, pl. 154, fig. 18 (♀); *id.* ix, p. 157, pl. 171, fig. 6 (♂).

Differs from *vibicalis* in the palpi being larger, especially in the male. Wings rufous brown in male, bright salmon-colour in female; fore wing with the antemedial line straight, the postmedial line nearly straight.

*Hab.* Nilgiris; Ceylon. *Exp.*, ♂ 40, ♀ 42 millim.

4604. **Bostra astigma,** *Hmpsn. Ill. Het.* ix, p. 157, pl. 171, fig. 12.

♀. Differs from *vibicalis* in being dark rufous. Fore wing with pale nearly straight ante- and postmedial lines, with the area between them rather darker; no dark cell-spot. Hind wing with the lines pale and much closer together; cilia of both wings white at tips.

*Hab.* Ceylon. *Exp.* 40 millim.

4605. **Bostra denticulata,** *Swinh. Trans. Ent. Soc.* 1890, p. 290, pl. 8, fig. 7.

Stemmatophora duplicata, *Warr. A. M. N. H.* (6) vii, p. 437.

♀. Dark grey-brown or rufous irrorated with fuscous. Fore wing with traces of dark irregular antemedial line; a dark cell-spot; a slightly curved dark pale-edged minutely dentate postmedial line. Abdomen and hind wing pale, the latter irrorated with brown towards the margin.

*Hab.* Burma. *Exp.* 32 millim.

4606. **Bostra igneusta,** *Swinh. A. M. N. H.* (6) xvi, p. 300.

♂. Head and thorax fiery red. Fore wing yellow, thickly irrorated with fiery red and sparsely with black; the costal area darkest; a black speck on discocellulars; an oblique slightly curved dark postmedial line; cilia brown at tips. Hind wing yellow, slightly suffused with red and black.

*Hab.* Khásis. *Exp.* 22 millim.

4607. **Bostra illusella,** *Wlk. Cat.* xxvii, p. 123; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 19; *C. & S.* no. 4525.

♀. Pale fuscous brown with a slight fulvous tinge. Fore wing with curved white antemedial line and sinuous postmedial line. Hind wing with traces of curved postmedial line, which is more distinct on underside.

*Hab.* Ceylon. *Exp.* 16 millim.

4608. **Bostra gnidusalis**, *Wlk. Cat.* xvii, p. 278; *C. & S.* no. 4502.
Scotomera tristis, *Butl. P. Z. S.* 1881, p. 623; *C. & S.* no. 4531.

Fuscous grey; head ochreous. Fore wing with indistinct pale antemedial line slightly bent inwards at costa; a pale postmedial line incurved below vein 4; indistinct pale specks on costa between the two lines and a dark cell-speck. Hind wing with faint traces of submarginal line.

*Hab.* Campbellpur; Karáchi; Ceylon. *Exp.* 18 millim.

4609. **Bostra balux**, *Swinh. P. Z. S.* 1884, p. 519, pl. 47, fig. 14; *C. & S.* no. 1899.

♂. Head, thorax, and abdomen fuscous brown. Fore wing dull pinkish brown, with some dark specks on costa; traces of a cell-speck, and pale nearly straight ante- and postmedial lines. Hind wing fuscous.

*Hab.* Karáchi. *Exp.* 14 millim.

4610. **Bostra arida**, *Butl. P. Z. S.* 1881, p. 621; *C. & S.* no. 4352.

Pale rufous slightly suffused with fuscous. Fore wing with indistinct fuscous specks on costa; traces of ante- and postmedial lines, the latter oblique and angled inwards on vein 2. Hind wing fuscous.

*Hab.* Karáchi. *Exp.* 14 millim.

b′. (Comaria). *Frons smooth and rounded.*

a². *Antennæ of male normal.*

4611. **Bostra castanoptera**, *Moore, Lep. Ceyl.* iii, p. 260, pl. 178, fig. 7; *C. & S.* no. 4505.

Bright ferruginous slightly irrorated with fuscous. Fore wing with a white oblique medial line from cell to inner margin, with fuscous on its inner edge; an indistinct sinuous postmedial line excurved between veins 6 and 2. Hind wing fuscous, with traces of curved postmedial line.

*Hab.* Ceylon. *Exp.* 20 millim.

4612. **Bostra subviridescens**, *Warr. A. M. N. H.* (6) xvi, p. 466.

♀. Ochreous suffused with pale olive-green; abdomen with lateral black marks. Fore wing with pale specks on basal two-thirds of costa; indistinct diffused pale sinuous ante- and postmedial lines; a discocellular black speck; the medial area below and beyond the cell irrorated with a few black scales; a marginal series of black specks, two below apex and one near outer angle larger. Hind wing paler; an indistinct oblique dark antemedial line; a prominent postmedial line with pale outer edge, bent outwards at vein 5; the disk irrorated with black scales; a marginal series of black specks.

*Hab.* Khásis. *Exp.* 20 millim.

b². *Antennæ of male with the basal joint very long, the shaft with long cilia contorted and with two teeth at middle.*

4613. **Bostra fascialis**, *Warr. A. M. N. H.* (6) xvi, p. 465.

Olive-green. Fore wing with the costa narrowly black, with white specks on the medial portion; sinuous pale-edged black ante- and postmedial lines; a black discocellular spot; a marginal series of black specks. Hind wing with medial black baud, edged by darker lines, the outer sinuous; a marginal series of black specks.

*Hab.* Sikhim; Khásis. *Exp.* 24 millim.

b. (Megalomia). *Patagia of male extending far beyond metathorax, with large tufts of hair below them.*

a'. *Mid tibiæ and 1st joint of tarsi smooth.*

4614. **Bostra carnealis**, n. sp.

♂. Pale ochreous brown tinged with pink. Fore wing with traces of dark discocellular speck; an indistinct pink postmedial line curved from below costa to vein 2. Hind wing uniform. Underside with the outer area tinged with fuscous; the markings of fore wing dark.

*Hab.* E. Pegu (*Doherty*). *Exp.* 36 millim. Type in coll. Elwes.

b'. *Mid tibiæ and 1st joint of tarsi in male fringed on inner side with long hair.*

4615. **Bostra angulifascia**, *Moore, Lep. Atk.* p. 206; *C. & S.* no. 4440.

♂. Dull ochreous; abdomen suffused with fuscous towards extremity. Fore wing with the base black-brown, bounded by a whitish antemedial line angled at middle; the medial area dull ochreous, with black discocellular spot and black and white specks on costa; the outer area black-brown, banded inwardly by the pale postmedial line, which is sinuous and bent inwards at vein 3 to below end of cell. Hind wing with the basal half dull ochreous, the outer half pale fuscous. Underside with indistinct curved postmedial line.

*Hab.* Sikhim. *Exp.* 22 millim.

## Genus **DILOXIA**, nov.

Type, *D. fimbriata*, Hmpsn.
*Range.* S. India.

Palpi rostriform, downcurved at extremity and reaching well beyond the frons, which is rounded; maxillary palpi minute; antennæ of male with very long bristles and cilia; build slight; legs long and slender, the tibiæ smooth, the spurs long. Fore

wing broad; vein 3 from before angle of cell; 4, 5 from angle. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4616. **Diloxia fimbriata**, n. sp.

♂. Grey with a rufous tinge; head, thorax, and abdomen suffused with fuscous; wings slightly irrorated with fuscous. Fore wing with the basal area fuscous, bounded by the pale curved antemedial line; the medial area paler, with a prominent black cell-spot and black specks on costa, bounded by the pale sinuous postmedial line, beyond which the area is more or less suffused with fuscous. Hind wing with the basal area pale, bounded by a dark-edged curved pale medial line, with the area beyond it pinkish. Underside more suffused with pink.

Fig. 105.—*Diloxia fimbriata*, ♂. 1/1.

♀. More uniformly suffused with fuscous.

*Hab.* Nilgiris (*Hampson*). *Exp.* 24–30 millim. Type in B. M.

## Genus PROPACHYS.

Propachys, *Wlk. Cat.* xxvii, p. 6 (1863).

Type, *P. nigrivena*, Wlk.

*Range.* China; Sikhim; Khásis.

Palpi rostriform and curving downwards at extremity, the end of the 2nd and 3rd joints tufted with long curved hair, forming a cavity in the male, in the female longer and slightly fringed with hair; maxillary palpi minute and filiform; proboscis well developed; frons rounded; antennæ minutely ciliated; male with a tuft of long hair from below the patagia; tibiæ and tarsi fringed with hair. Fore wing with the apex rounded; vein 3 from before angle of cell; 4, 5 from angle. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 stalked.

4617. **Propachys nigrivena**, *Wlk. Cat.* xxvii, p. 17; *C. & S.* no. 4728.

Fig. 106.—*Propachys nigrivena*, ♂. 1/1.

Bright crimson; palpi, legs, and abdomen black; head golden yellow. Fore wing with the veins beyond the cell, the median

nervure, the interno-median fold, and vein 1 streaked with black.

*Hab.* China; Sikhim; Khásis. *Exp.*, ♂ 38–44, ♀ 48 millim.

## Genus ORYBINA.

Orybina, *Snell. Tijds. v. Ent.* xxxviii, p. 107.
Oryba, *Wlk. Cat.* xxvii, p. 10 (1863), præocc.

Type, *O. flaviplaga*, Wlk.

*Range.* Himalayas; Burma.

Palpi of male rostriform, about twice the length of head, triangularly scaled, hollowed out inside, and with the apex very acute; in female more slender, and three to four times the length of head; maxillary palpi minute in male, filiform and upturned in female; frons smooth; antennæ of male minutely ciliated; tibiæ moderately hairy. Fore wing with the costa arched near base and apex, and slightly excised at middle, the apex prodnced; the outer margin excised below apex, then excurved, and oblique towards outer angle; vein 3 from close to angle of cell; 4, 5 from angle; the discocellulars arising from the subcostal nervnre at origin of vein 11, so that veins 6, 7, 8, 9, 10 are stalked. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 shortly stalked; the costa excised at middle in male.

4618. **Orybina flaviplaga**, *Wlk. Cat.* xxvii, p. 11; *C. & S.* no. 4729.

♂. Flesh-pink. Fore wing slightly suffused with fuscous, and the inner area with orange-red; a large golden-yellow patch slightly outlined with crimson from the discocellnlars halfway to outer margin, bounded by veins 5 and 11, and with a diffused fuscons patch beyond it; an obliquely curved antemedial dark

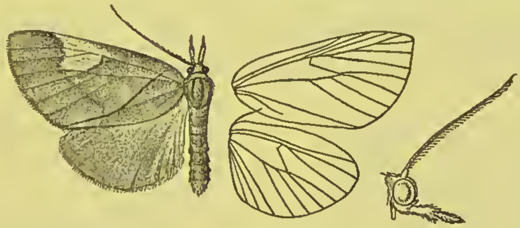

Fig. 107.—*Orybina flaviplaga*, ♀. 1/1.

line; an inwardly-oblique crenulate fuscous line from the fuscons patch to middle of inner margin. Hind wing pale; the area from lower angle of cell to outer margin at apex and vein 2 orange-red, with the dark postmedial line on it. Underside with the apical area of fore wing grey.

♀. Flesh-pink, without the orange-red suffusion; fore wing with the antemedial line more oblique and produced as a dark streak along vein 1 to outer margin; hardly a trace of the dark patch beyond the yellow patch.

*Hab.* Simla; Sikhim; Momeit, Burma. *Exp.*, ♂ 38, ♀ 48 millim.

4619. **Orybina plangonalis**, *Wlk. Cat.* xviii, p. 790; *C. & S.* no. 4157.
Oryba conspicualis, *Snell. Trans. Ent. Soc.* 1890, p. 562, pl. 20, fig. 3.

♀. Purple-grey; palpi bright pink. Fore wing with almost the whole inner area suffused with fiery red; an obliquely curved antemedial dark line; a red-edged yellow lunule beyond the discocellulars, and a red-edged hyaline spot at origin of veins 3, 4, 5, with an oblique dark line from it to inner margin, where it sometimes meets the antemedial line; some fiery red on medial part of outer area; the veins dark, with some red scales on them. Hind wing pale, with a fiery red patch from lower angle of cell to outer margin below apex and vein 2, and crossed by the curved dark postmedial line; the apex and cilia from apex to vein 2 purplish grey.

*Hab.* Sikhim. *Exp.* 34 millim.

## Genus PROTEINIA, nov.

Type, *P. pallifrons*, Snell.

*Range.* Sikhim.

♀. Palpi porrect, slender, projecting about two and a half times length of head, the 3rd joint about half the length of 2nd; maxillary palpi minute; frons rounded; antennæ nearly simple; tibiæ smooth. Fore wing with the outer margin slightly angled at veins 6 and 4, then excised to outer angle; veins 3, 4, 5 from angle of cell; 6 from upper angle; 9 given off from 8 before 7; 10 free. Hind wing with the outer margin slightly angled at vein 4; veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4620. **Proteinia pallifrons**, *Snell. Trans. Ent. Soc.* 1890, p. 560.

♀. Head, thorax, and abdomen reddish brown. Fore wing deep coppery red; the costal area pale grey-brown, with some white specks on costa; an ill-defined oblique pale line from median nervure to near base of inner margin; a pale line from costa just before apex, curving outwards to the margin, then inwards to vein 2, where it is slightly angled; the cilia dark fuscous. Hind wing deep red, the basal half suffused with fuscous; pale curved sinuous ante- and postmedial lines, with a hyaline conical patch between them below lower angle of cell. Underside with double line from outer margin of fore wing at vein 5 to anal angle of hind wing.

Fig. 108.—*Proteinia pallifrons*, ♀. 1/1.

*Hab.* Sikhim. *Exp.* 34 millim.

## Genus LORYMA.

Loryma, *Wlk. Cat.* xix, p. 890 (1859).
Tauba, *Wlk. Cat.* xxxv, p. 1766 (1866).
Ulotrichodes, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 58.

Type, *L. sentiusalis*, Wlk., from W. Africa.

*Range.* W. and S. Africa; China; Bhután; Bombay; Ceylon; Borneo.

Palpi porrect and straight, the 2nd joint thickly scaled and with a long sharp tuft of hair from extremity below extending as far as the 3rd joint; maxillary palpi filiform; antennæ of male fasciculate, with a sharp tuft of hair curved forward from basal joint, the shaft set on at an angle; tibiæ fringed with hair, the spurs long. Fore wing long and narrow, with the costa nearly straight; the outer margin very obliquely curved; vein 3 from near angle of cell; 4, 5 approximated for one-third length; 6 from upper angle; 7 given off from 8 before 9. Hind wing with vein 3 from angle of cell; 4, 5 approximated for nearly half their length; the discocellulars highly angled; veins 6, 7 from upper angle of cell.

4621. **Loryma recusata**, *Wlk. Journ. Linn. Soc.* vii, p. 62.
Loryma venosella, *Wlk. Cat.* xxxv, p. 1767; *C. & S.* no. 4704.

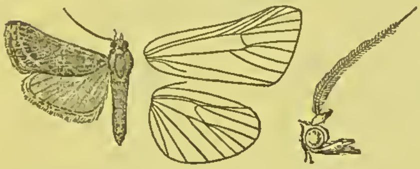

Fig. 109.—*Loryma recusata*, ♂. $\frac{3}{2}$.

Grey and brown; abdomen brown, with whitish segmental rings. Fore wing irrorated with black; the veins pale; a medial whitish line running out to an angle at origin of vein 2, then oblique to inner margin before middle; a curved submarginal white line with the area beyond it not irrorated with black; a white line followed by a fine black line on the margin. Hind wing whitish, with traces of an oblique fuscous postmedial line with diffused fuscous inside it near costa; a marginal black line.

*Hab.* Bhután; Bombay; Ceylon; Borneo. *Exp.* 26 millim.

## Genus CONSTANTIA.

Constantia, *Rag. Bull. Soc. Ent. Fr.* 1887, p. cxxxvii.
Dattinia, *Rag. Bull. Soc. Ent. Fr.* 1887, p. cxxxvii.
Zonora, *Swinh. P. Z. S.* 1889, p. 419.
Mnesixena, *Meyr. Trans. Ent. Soc.* 1890, p. 472.
Palura, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 61.

Type, *C. colchicalis*, H.-S., from E. Europe and Syria.

*Range.* S. and E. Europe; S. Africa; Armenia; Arabia; Persia; Sind.

Proboscis absent; palpi porrect, downcurved, about the length of head, and thickly scaled, the third joint minute; maxillary palpi thickly scaled; antennæ with the basal joint thickly tufted

with scales in front; mid and hind tibiæ of male with the outer spurs short. Fore wing with the costa nearly straight; the inner and outer margins forming a nearly even curve; vein 3 from before angle of cell; 5 from above angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with the discocellulars highly angled; vein 3 from before angle of cell; 5 from slightly above angle; 6, 7 from upper angle.

SECT. I. Antennæ of male bipectinated for two-thirds length.

A. (Palura). *Fore wing with vein 9 given off from 8 beyond 7.*

a. *Fore wing with vein 5 widely separate from 4 at base.*

4622. **Constantia vulgaris**, *Butl. P. Z. S.* 1881, p. 621; *C. & S.* no. 4522.

Pale brown irrorated with black. Fore wing with whitish antemedial band with black inner edge from the cell to inner margin and with two curves in it; two blackish marks in end of cell; the postmedial band arising from a whitish spot on costa near apex, then fuscous and curved inwards to lower angle of cell and terminating in a whitish dentate mark above inner margin; the margin and cilia with a moniliform white and brown band. Hind wing fuscous brown; the cilia white at tips. Underside greyer; hind wing with traces of curved postmedial band.

*Hab.* Aden; Persia; Sind. *Exp.*, ♂ 22, ♀ 24 millim.

b. *Fore wing with vein 4 stalked with 5 in male, approximated to it in female.*

4623. **Constantia eremialis**, *Swinh. P. Z. S.* 1889, p. 422.

Brownish grey suffused with fuscous. Fore wing with traces of dentate antemedial pale line and of fuscous dentate postmedial line incurved from costa to lower angle of cell, then erect. Underside whitish, with dark spot on costa of fore wing before apex and large brown subapical patch to each wing.

*Hab.* Aden; Sind. *Exp.*, ♂ 24, ♀ 34 millim.

B. (Constantia). *Fore wing with vein 9 given off from 8 before 7 or from the same point as it.*

4624. **Constantia opiparalis**, *Swinh. P. Z. S.* 1889, p. 419, pl. 44, fig. 11.

Fig. 110.—*Constantia opiparalis*, ♂. 1/1.

♂. Grey-brown suffused with fuscous; abdomen whitish. Fore wing with oblique silvery-white subbasal mark from below costa narrowing to middle of inner margin; a diamond-shaped mark in and below end of cell; an oval spot in upper angle; an oblique streak from costa near apex; a dentate submarginal

band sending a streak inwards along vein 2; a curved mark above inner margin. Hind wing whitish, with dentate submarginal line from costa to vein 2; the margin brown.

♀. More ochreous brown.

*Hab.* Sind. *Exp.*, ♂ 26, ♀ 30 millim.

SECT. II. (*Dattinia*). Male with the antennæ ciliated; fore wing with vein 9 from 8 before 7.

4625. **Constantia proximalis**, *Christ. Hor. Soc. Ent. Ross.* xvii, p. 116; *id. Rom. Mém.* iii, p. 16, pl. 1, fig. 7.
Hypotia ingrata, *Butl. P. Z. S.* 1881, p. 621; *C. & S.* no. 4506.
Hypotia rubella, *Swinh. P. Z. S.* 1884, p. 523, pl. 48, fig. 9; *C. & S.* no. 4520.

Pale ochreous brown. Fore wing with the basal area darker and bounded by a black line with pale outer edge, slightly angled below cell; the medial area irrorated with fuscous; the postmedial black line with pale inner edge, arising from costa near apex, curved down to vein 2, then recurved to lower angle of cell and obliquely sinuous to inner margin. Hind wing ochreous with a slight fuscous tinge; traces of a pale submarginal line; the margin darker.

*Hab.* Armenia; Central Asia; Sind. *Exp.* 14–18 millim.

## Genus TYNDIS.

Tyndis, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 83.
Actenioides, *Warr. A. M. N. H.* (6) ix, p. 173 (1892).

Type, *T. tanganialis*, Rag., from E. Africa.

*Range.* E. Africa; India; Ceylon.

Palpi porrect, straight, and reaching well beyond the frons, the 2nd joint clothed with hair, the 3rd small; maxillary palpi minute and filiform; antennæ of male with fascicles of cilia; the basal joint dilated, curved, and roughly scaled. Fore wing narrow, with the costa nearly straight; the outer margin oblique; vein 3 from angle of cell; 4, 5 approximated for one-third length; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from angle of cell; 4, 5 approximated for one-third length; 6, 7 from upper angle.

4626. **Tyndis hypotialis**, *Swinh. P. Z. S.* 1885, p. 866; *C. & S.* no. 4529.
Nephopteryx creperalis, *Swinh. P. Z. S.* 1885, p. 877, pl. 57, fig. 20; *C. & S.* no. 4575.
Stemmatophora mucidalis, *Hmpsn. Ill. Het.* viii, p. 34 (*nec Guen.*).

Pale rufous irrorated with fuscous. Fore wing with diffused, almost erect antemedial dark line; a speck at end of cell; a postmedial diffused line slightly incurved below vein 5. Hind wing paler, with indistinct minutely dentate diffused postmedial

line not reaching costa or inner margin; both wings with a dark line through the cilia.

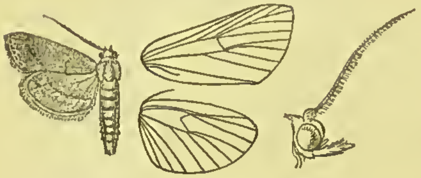

Fig. 111.—*Tyndis hypotialis*, ♂. 1/1.

The Travancore and Ceylon specimens have the antemedial line of fore wing absent; the latter has the base of costa fuscous; the postmedial line of hind wing absent; the underside suffused with fuscous and the postmedial line hardly traceable on either wing: *creperalis* is a fuscous-suffused female.

*Hab.* Khásis; Campbellpur; Karáchi; Mhow; Poona; Travancore; Ceylon. *Exp.*, ♂ 20–24, ♀ 26 millim.

4627. **Tyndis plana**, *Wlk. Trans. Ent. Soc.* (3) i, p. 92; *C. & S.* no. 1888.
Anthophila zamia, *Swinh. P. Z. S.* 1884, p. 518, pl. 47, fig. 12; *C. & S.* no. 1889.
Hypotia allalis, *Swinh. P. Z. S.* 1886, p. 462, pl. 41, fig. 2; *C. & S.* no. 4519.

Ochreous white. Fore wing with oblique medial dark line from cell to inner margin, with white inner edge; an obliquely sinuous postmedial line with white outer edge, and the dark part diffused inwards. Hind wing whiter, with curved fuscous postmedial line, hardly traceable in male; both wings with marginal dark maculate line and a dark line through the cilia.

*Hab.* Karáchi; Mhow. *Exp.*, ♂ 18, ♀ 22 millim.

## Genus DISCORDIA.

Discordia, *Swinh. P. Z. S.* 1885, p. 448.

Type, *D. evulsa*, Swinh.

*Range.* Ceylon; Poona.

Palpi porrect, projecting about the length of head and fringed with hair below at extremity. Maxillary palpi nearly filiform; antennæ of male nearly simple; mid and hind tibiæ with the outer terminal spurs short. Fore wing narrow, with the costa straight; the inner and outer margins almost evenly curved; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7 given off from 8 before 9; 10 and 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4628. **Discordia evulsa**, *Swinh. P. Z. S.* 1885, p. 448, pl. 27, fig. 2; *C. & S.* no. 1719.

♂. Ochreous slightly irrorated with fuscous. Fore wing with oblique diffused fuscous line from lower angle of cell to inner margin near base, with a similar lunulate line from apex beyond

it; a marginal dark line. Hind wing yellower. Underside with the costal area of each wing reddish.
*Hab.* Poona. *Exp.* 20 millim.

4629. **Discordia basalis**, n. sp.

Head, thorax, and abdomen grey suffused with fuscous. Fore wing grey irrorated with black; the basal area black-brown, bounded by a curved white line; a whitish submarginal line excurved between veins 6 and 2; a blackish apical patch continued as a very indistinct oblique band across the submarginal line to middle of inner margin; a marginal series of dark specks. Hind wing paler, with indistinct pale curved submarginal line, the area beyond it suffused with fuscous; a marginal dark line.

Fig. 112.—*Discordia basalis*, ♂. 1/1.

*Hab.* Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

4630. **Discordia siniferalis**, n. sp.

White, marked with olive-brown and fuscous. Fore wing with an olive-brown patch on basal inner area and black marks on costa and inner margin; two indistinct fuscous medial lines arising from a mark on costa; a postmedial oblique line forming a deep and very prominent sinus to near outer margin between veins 6 and 4 filled in with fuscous, and with a black mark beyond it near apex and another near inner margin; a marginal series of black specks. Hind wing fuscous, with some black marginal specks.
*Hab.* Ceylon (*Pole*). *Exp.*, ♂ 14, ♀ 16 millim.

## Subfamily HYDROCAMPINÆ.

Moths of usually very slender build with the legs very long.

Proboscis present. Fore wing with vein 7 from the cell; 10 stalked with 8, 9, except in a small percentage of specimens of some species of *Nymphula* and *Oligostigma* amongst Indian forms, and in a few species which occur in other faunas—this character, though highly characteristic of the subfamily, not having become very stable; these exceptions may be discriminated from the *Pyraustinæ* by their long maxillary palpi dilated at the extremity. Hind wing with the median nervure non-pectinate.

The larvæ of some species of *Nymphula* feed on water-plants and are fitted for a life below the surface of the water.

*Key to the Genera.*

- A. Palpi upturned.
  - *a*. Palpi with the 3rd joint long and acuminate.
    - *a'*. Frons rounded and not prominent.
      - $a^2$. Maxillary palpi filiform and of moderate length.
        - $a^3$. Hind wing with the outer margin evenly rounded.
          - $a^4$. Antennæ with the shaft smooth.
            - $a^5$. Palpi with the 2nd joint short and broadly rounded with scales .................... 23. ORPHNOPHANES, [p. 230.
            - $b^5$. Palpi with the 2nd joint long and slender.............. 22. LUMA, p. 229.
          - $b^4$. Antennæ with the shaft annulate. 4. CATACLYSTA, [p. 196.
        - $b^3$. Hind wing with the outer margin excised towards anal angle.
          - $a^4$. Palpi with no sharp tuft at end of 2nd joint in front .......... 9. AMBIA, p. 202.
          - $b^4$. Palpi with a sharp tuft at end of 2nd joint in front .......... 8. THYSANOIDMA, [p. 202.
      - $b^2$. Maxillary palpi filiform and very long; palpi with the 2nd joint smoothly scaled .......................... 1. MIXOPHILA, [p. 190.
      - $c^2$. Maxillary palpi long and dilated with scales at extremity.
        - $a^3$. Hind wing with veins 4, 5 stalked.. 2. ERISTENA, p. 190.
        - $b^3$. Hind wing with veins 4, 5 from cell.
          - $a^4$. Hind wing with the outer margin evenly rounded .............. 3. NYMPHULA, p. 191.
          - $b^4$. Hind wing with the outer margin excised below apex and lobed at middle..................... 10. OLIGOSTIGMA, [p. 207.
    - *b'*. Frons produced to a rounded prominence; maxillary palpi minute; hind wing with vein 7 given off before end of cell .... 7. CYMORIZA, p. 200.
  - *b*. Palpi with the 3rd joint long and spatulate at extremity; hind wing with vein 7 given off before end of cell ............ 6. MUSOTIMA, p. 199.
  - *c*. Palpi with the 3rd joint short and blunt.
    - *a'*. Palpi with a small triangular tuft in front of 3rd joint.
      - $a^2$. Fore wing with the cell more than half the length of wing.
        - $a^3$. Fore wing with vein 7 straight; hind wing with the cell more than half length of wing.
          - $a^4$. Hind wing with the outer margin slightly angled at middle ...... 5. SYMPHONIA, [p. 198.
          - $b^4$. Hind wing with the outer margin excised below apex and lobed at vein 5 ...................... 11. AULACODES, [p. 212.
        - $b^3$. Fore wing with vein 7 curved; hind wing with the cell about a third length of wing ................ 24. COPTOBASIS, [p. 232.
      - $b^2$. Fore wing with the cell less than half the length of wing .............. 18. HYMENOPTYCHIS, [p. 223.

*b'*. Palpi with the 2nd and 3rd joints conically scaled .................... 25. COELORHYNCIDIA, [p. 232.

*c'*. Palpi with the 3rd joint naked.

*a*². Hind wing with the outer margin rounded.

*a*³. Fore wing with veins 4, 5 stalked.. 16. PERISYNTROCHA, [p. 222.

*b*³. Fore wing with veins 3, 4 stalked.. 17. STEGOTHYRIS, [p. 223.

*c*³. Fore wing with veins 3, 4, 5 from cell.

*a*⁴. Hind wing with veins 4, 5 from cell.

*a*⁵. Hind wing with vein 7 anastomosing with 8 almost to apex or coincident with it ........................ 15. NIPHOSTOLA, [p. 222.

*b*⁵. Hind wing with vein 7 anastomosing with 8 to about two-thirds of wing.

*a*⁶. Antennæ with the shaft annulate and not as long as fore wing ............ 21. BRADINA, p. 226.

*b*⁶. Antennæ with the shaft smooth and somewhat longer than fore wing.

*a*⁷. Abdomen of moderate length ................ 30. PILETOCERA, [p. 236.

*b*⁷. Abdomen very long, especially in male.......... 19. TATOBOTYS, p. 224.

*b*⁴. Hind wing with veins 4, 5 stalked. 26. DIATHRAUSTODES, [p. 233.

*b*². Hind wing with the outer margin truncate and excised towards anal angle ........................ 20. ALMONIA, p. 225.

B. Palpi porrect.

*a*. Palpi once to twice the length of head.

*a'*. Palpi triangularly scaled, the third joint hidden by hair.

*a*². Hind wing with vein 4 absent ...... 27. DIATHRAUSTA, [p. 233.

*b*². Hind wing with vein 4 present.

*a*³. Hind wing with veins 4, 5 not approximated towards origin .... 33. MABRA, p. 240.

*b*³. Hind wing with veins 4, 5 closely approximated for a short distance.

*a*⁴. Fore wing long and narrow, vein 3 from before angle of cell. 28. STENIA, p. 234.

*b*⁴. Fore wing subtriangular, vein 3 from angle of cell.

*a*⁵. Palpi projecting about the length of head; antennæ with the shaft smooth .......... 29. HYALOPLAGA, [p. 235.

*b*⁵. Palpi projecting about twice the length of head; antennæ with the shaft annulate .......... 13. DAULIA, p. 220.

*b'*. Palpi straight and fringed with long hair below, the 3rd joint prominent.

*a*². Maxillary palpi filiform ............ 14. TALANGA, p. 221.

*b*². Maxillary palpi triangularly scaled .. 12. PARTHENODES, [p. 216.

*b*. Palpi projecting three times the length of head and straight .................... [p. 238. 31. CAMPTOMASTYX,
*c*. Palpi projecting three times the length of head and downcurved at extremity...... [p. 239. 32. HYDRORYBINA,

## Genus MIXOPHILA.

Mixophila, *Meyr. Trans. Ent. Soc.* 1887, p. 269.
Angonia, *Snell. Tijd. v. Ent.* xxxvi, p. 54, 1893.

Type, *M. renatusalis*, Wlk.

*Range.* Himalayas; Ceylon; Burma; Malayan subregion to Sambawa.

Palpi upturned, the 2nd joint smoothly scaled and not reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi long and filiform; frons rounded; antennæ annulate; tibiæ with the spurs long and equal. Fore wing with the apex rectangular; vein 3 from well before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9, 10. Hind wing with vein 3 from before angle of cell; 4, 5 well separated at origin; 6, 7 from upper angle.

4631. **Mixophila renatusalis**, *Wlk. Cat.* xvii, p. 484.
Crambus ermineus, *Moore, Lep. Ceyl.* iii, p. 380, pl. 184, fig. 7; *C. & S.* no. 4438 A.
Angonia crambidalis, *Snell. Tijd. v. Ent.* xxxvi, p. 56, pl. 3, fig. 1.

Pure silvery white; abdomen tinged with fulvous at middle. Fore wing with fuscous line just beyond middle, highly excurved beyond cell and expanding into a spot at inner margin; a sinuous submarginal line bent out to near the margin at vein 6, with golden-yellow streaks on the veins beyond it and a black spot between veins 3 and 4; a black marginal line at apex; cilia fuscous at tips. Hind wing with the apical area slightly tinged with fuscous.

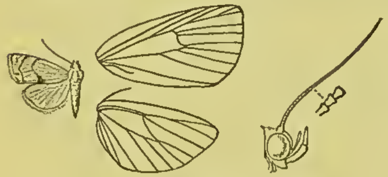

Fig. 113.
*Mixophila renatusalis*, ♂. 1/1.

*Hab.* Bhután; Dharmsála; Ceylon; Shán States; Borneo; Java; Sambawa; New Guinea. *Exp.* 14 millim.

## Genus ERISTENA.

Eristena, *Warr. A. M. N. H.* (6) xvii, p. 149 (1896).

Type, *E. murinalis*, Warr.

*Range.* Khásis; Ceylon.

Differs from *Nymphula* in the antennæ being slightly annulated; the wings very long and narrow. Hind wing with veins 4, 5 on a long stalk; 7 anastomosing with 8 almost to apex.

4632. **Eristena postalbalis**, *Hmpsn. Ill. Het.* ix, p. 175, pl. 174, fig. 3.

♀. White, the palpi and a spot behind collar fuscous; abdomen with pale fuscous bands. Fore wing with the basal half of costa and patches of the inner area suffused with fuscous; a black speck on costa just beyond the middle, with a sinuous fuscous line arising just beyond it and met at inner margin by a sinuous postmedial line; a yellow patch beyond the cell between the two lines; a sinuous submarginal fuscous band with a yellow patch on it below costa; a yellow marginal band tapering and becoming fuscous towards outer angle, a black line on its inner edge and some black marginal specks towards apex. Hind wing with traces of oblique fuscous antemedial line from cell to inner margin; a large black discocellular spot; an indistinct postmedial line curved from costa to lower angle of cell, then excurved again; an indistinct sinuous submarginal band, broad towards costa; a waved line near margin, with three marginal black specks beyond it and an indistinct marginal fuscous line.

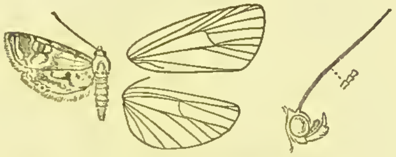

Fig. 114.—*Eristena postalbalis*, ♀. 3/2.

*Hab.* Ceylon. *Exp.* 18 millim.

4633. **Eristena murinalis**, *Warr. A. M. N. H.* (6) xvii, p. 150.

♂. Silky grey-brown. Hind wing with the basal two-thirds whitish; a discocellular speck and fine dark postmedial line; both wings with a dark line through the cilia.

*Hab.* Khásis. *Exp.* 20 millim.

## Genus NYMPHULA.

Nymphula, *Schrank, Fauna Boica*, ii, pt. 2, p. 162 (1802).
Parapoynx, *Hübn. Verz.* p. 362 (? 1818).
Hydrocampa, *Latr. Fam. Nat.* p. 478 (1825).

Type, *N. nymphæata*, Linn., from Europe.

*Range.* Universally distributed.

Palpi upturned, the 2nd joint moderately fringed with hair in front and reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi long and dilated with scales at extremity, frons rounded; antennæ annulated; legs long, the tibiæ smooth, with the spurs almost equal. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9, 10 *. Hind wing with the cell about half the length of wing; veins 3, 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8 very strongly.

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* In some specimens of *N. nymphæata, responsalis*, and *affinialis*, vein 10 arises from the cell, though in the large majority of specimens stalked with 8, 9.

4634. **Nymphula fœdalis**, *Guen. Delt. & Pyr.* p. 228, pl. 4, fig. 7; *C. & S.* no. 4434.
Isopteryx tenellalis, *Guen. Delt. & Pyr.* p. 228.
Isopteryx leucothoalis, *Wlk. Cat.* xvii, p. 400.
Isopteryx spilomelalis, *Wlk. Cat.* xvii, p. 403.
Hydrocampa scitalis, *Led. Wien. ent. Mon.* 1863, p. 451.
Physematia epispila, *Meyr. Trans. Ent. Soc.* 1886, p. 257.

Head fuscous and white; thorax white spotted with black; abdomen white banded with fuscous, and with paired black spots on basal segments. Fore wing white; four black spots near base; curved subbasal and sinuous antemedial lines; a black spot in cell and discocellular band; fuscous suffusion in, below, and above end of cell on costa. Hind wing with discocellular black spot; some fuscous suffusion below and beyond end of cell; both wings with the marginal area fuscous, with dentate white line enclosing a series of triangular black spots on the margin.

*Hab.* Ethiopian, Oriental, and Australian regions. *Exp.* 16 millim.

4635. **Nymphula responsalis**, *Wlk. Cat.* xxxiv, p. 1326.
Nymphula turbata, *Butl. Trans. Ent. Soc.* 1881, p. 586.
Paroponyx marmorea, *Meyr. Trans. Ent. Soc.* 1885, p. 434.
Isopteryx enixalis, *Swinh. P. Z. S.* 1885, p. 869; *C. & S.* no. 4433.
Cymoriza linealis, *Moore, Lep. Atk.* p. 210; *C. & S.* no. 4392.

Head and thorax white irrorated with brown and black; abdomen white, with broad brown and black bands. Fore wing blackish and fulvous, with indistinct subbasal and curved antemedial white bands; sinuous medial and postmedial white lines, the former angled outwards to lower angle of cell, the latter angled inwards below costa, bent out to vein 3, and retracted so as almost to meet the medial line at lower angle of cell, the area between them usually with more or less white both on its costal and inner portions, and with a very ill-defined fulvous lunule beyond the discocellulars; a very irregular submarginal white band, dentate below middle; a marginal lunulate black and fulvous band, dentate below vein 5. Hind wing with a dark spot near base of inner area; a diffused antemedial dark band from cell to inner margin, with a line beyond it; a dark-edged fulvous spot beyond cell; a postmedial sinuous line nearly meeting the medial line at inner margin, with a diffused fuscous and fulvous band beyond it; a marginal fulvous and black lunulate band.

The distribution of the black, fulvous, and white areas is extremely variable.

*Hab.* Japan; throughout India, Ceylon, and Burma; Australia. *Exp.* 18–20 millim.

4636. **Nymphula crisonalis**, *Wlk. Cat.* xix, p. 961; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 8; *C. & S.* no. 4397.
Parapoynx hebraicalis, *Snell. Tijd. v. Ent.* xxiii, p. 240, and xxvii, pl. 4, fig. 11.
Parapoynx myina, *Meyr. Trans. Ent. Soc.* 1885, p. 432.

Differs from *affinialis* in being fuscous brown; wings with the

markings obscured; fore wing with the fulvous yellow postmedial band interrupted, bent inwards to costa round the discocellular mark which is lunulate; traces of a curved submarginal line sometimes developed into a black-edged fulvous band. Hind wing with two obscure oblique waved postmedial fuscous lines, which may be developed into black-edged fulvous bands; both wings with hardly a trace of the marginal fulvous band, and with a series of black specks at base of cilia.

*Hab.* Chekiang, China; Ceylon; Java; Celebes; Auscralia. *Exp.* 22 millim.

4637. **Nymphula affinialis**, *Guen. Delt. & Pyr.* p. 270; *C. & S.* no. 4396.

? Botys ardealis, *Feld. Reis. Nov.* pl. 134, fig. 31; *C. & S.* no. 4045.
Oligostigma incommoda, *Butl. P. Z. S.* 1881, p. 180; *C. & S.* no. 4411.

White, more or less suffused with yellowish brown and irrorated with black; abdomen with fuscous band. Fore wing with very ill-defined oblique yellow antemedial and medial bands; an incomplete black discocellular annulus; a better defined yellow postmedial band excurved from costa to vein 3, then retracted to origin of vein 2; a diffused fuscous band on outer area; a black submarginal line and yellow marginal band. Hind wing white with black discocellular speck; a diffused fuscous postmedial band traversed by an indistinct white line; a black submarginal line and yellow marginal band.

*Hab.* Socotra; Simla; Sikhim; Karáchi; Mhow; Poona; Bombay; Nicobars. *Exp.* 20 millim.

4638. **Nymphula diminutalis**, *Snell. Tijd. v. Ent.* xxiii, p. 242, & xxvii, p. 48, pl. 5, fig. 1.

Differs from *affinialis* in the postmedial yellow band of fore wing being incurved to costa nearer the black annulus; a sinuous submarginal yellow band, its outer edge indented above middle, its inner edge dentate on vein 2. Hind wing with antemedial line from cell to inner margin; a postmedial line curved from costa to lower angle of cell, then oblique; a sinuous yellow submarginal band, its outer edge indented below costa.

*Hab.* China; Punjab; Bombay; Ceylon; Java; Celebes. *Exp.* 12–16 millim.

4639. **Nymphula fluctuosalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 27.

Paraponyx linealis, *Guen. Delt. & Pyr.* p. 271; *C. & S.* no. 4399.
Oligostigma chrysippusalis, *Wlk. Cat.* xvii, p. 432.
Oligostigma obitalis, *Wlk. Cat.* xvii, p. 432.
Parapoynx aptalis, *Led. Wein. ent. Mon.* 1863, pp. 452, 485.
Oligostigma curta, *Butl. Ent. Mo. Mag.* xv. p. 270.
? Paraponyx oryzalis, *Wood-Mason, Rice Pest of Burma, Calcutta*, 1885; *C. & S.* no. 4400.

Head and thorax white, irrorated with black; abdomen white

with broad black-edged fulvous bands. Fore wing white; the costal area tinged with fulvous and irrorated with black; oblique subbasal and antemedial black bands, tinged with fulvous from cell to inner margin; an indistinct fulvous spot in cell, and black spot at upper angle; a very oblique fulvous-tinged black band, curved from the costa near apex to lower angle of cell, then straight. Hind wing with oblique subbasal line from cell to inner margin, where it is nearly joined by a very oblique line from costa beyond middle; both wings with a slightly curved oblique black-edged fulvous postmedial band, a black line near the margin, a fulvous marginal band and black line at base of cilia.

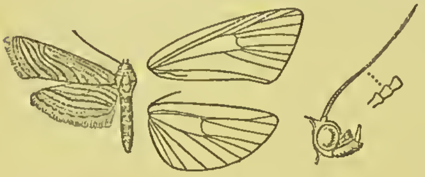

Fig. 115.—*Nymphula fluctuosalis*, ♂. $\frac{3}{2}$.

Prof. Wood-Mason described and figured as *oryzalis* the larva and pupa of an aquatic species which is probably *fluctuosalis*. *Larva* whitish; the head with a few long hairs and five ocelli on each side in a crescentic form; the somites with a few stiff setæ and with four longitudinal series of delicate white filaments acting as tracheal gill-tufts, arranged in groups of two to four filaments, two of the series being above the spiracles and two below. It is very destructive to rice-crops in Burma.

*Pupa* fusiform and pale brown, with the stigmata of the three first abdominal somites large and nipple-like and open to the air-chamber of the cocoon.

*Hab.* Throughout the tropical and subtropical zones, on the north to Formosa and the Sandwich Islands, on the south to Australia. *Exp.* 16–20 millim.

4640. **Nymphula votalis**, *Wlk. Cat.* xvii, p. 433; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 4; *C. & S.* no. 4402.

Differs from *fluctuosalis* in the ground-colour being brown; abdomen ringed with black, but without fulvous bands; wings without any of the fulvous markings, which are replaced by black. Fore wing with the line from costa beyond middle not so much bent inwards to angle of cell, finer towards inner margin, and on hind wing further from the antemedial line; both wings with the postmedial band diffused and fuscous; the cilia fuscous.

*Hab.* Calcutta; Nilgiris; Ceylon; Rangoon. *Exp.* 16 millim.

4641. **Nymphula leucostola**, n. sp.

♂. Differs from *votalis* in the ground-colour being pure white; the head brown; abdomen ringed with brown and with brown bands on the subbasal and subterminal segments. Fore wing with the costal area suffused with brown; the subbasal and antemedial lines obsolescent; the line beyond middle fine and evenly curved; both wings with the diffused postmedial band brown and prominent;

a marginal series of specks with a line inside it replacing the marginal band.

*Hab.* Rangoon. *Exp.* 14 millim. Type in B. M.

4642. **Nymphula fusalis**, n. sp.

Whitish thickly irrorated with dark grey; head and abdomen suffused with fuscous. Fore wing with the costal area suffused with fuscous; dark spots below middle of cell and in cell; both wings with black discocellular spot; the postmedial line highly excurved between veins 6 and 4, then retracted to origin of vein 2; the outer area suffused with dark grey and with traces of slightly sinuous fulvous line on its inner edge; a minutely waved black line just inside the margin; a black line through the cilia.

*Hab.* Nágas (*Doherty*). *Exp.*, ♂ 16, ♀ 26 millim. Type in coll. Elwes.

4643. **Nymphula fuscicostalis**, n. sp.

♀. White; head and collar tinged with fuscous brown. Fore wing with the costa tinged with fuscous to beyond middle; a dark antemedial spot below cell and others at middle of cell and on discocellulars; a series of dark specks just inside the margin. Hind wing with antemedial series of dark specks; traces of postmedial and submarginal lines, and of a series of specks just inside margin.

*Hab.* Calcutta. *Exp.* 28 millim. Type in B. M.

4644. **Nymphula depunctalis**, *Guen. Delt. & Pyr.* p. 274; *C. & S.* no. 4174.

Nymphula stagnalis, *Zell. K. Vet.-Ak. Handl.* 1852, p. 26 (præocc.).
Zebronia decussalis, *Wlk. Cat.* xvii, p. 481.

Pure white. Fore wing with the costa dark; a dark speck on a fulvous spot below middle of cell; a fulvous spot below origin of vein 2; two black discocellular specks; an oblique fulvous band beyond the cell from costa to vein 5; a submarginal fulvous band, narrowing below vein 5, or often reduced to specks and obsolescent. Hind wing with dark discocellular speck; sinuous medial and postmedial fulvous bands usually broken up into spots; both wings with a fine crenulate fulvous or dark brown line just inside the margin and a more or less developed marginal series of specks.

*Hab.* S. Africa; throughout India, Ceylon, and Burma; Java; Australia. *Exp.* 16 millim.

4645. **Nymphula simplalis**, *Snell. Trans. Ent. Soc.* 1890, p. 638.

♂. Whitish very slightly suffused with rufous. Fore wing with traces of obliquely curved antemedial line and of a white dark-edged discocellular spot; slight rufous suffusion along median nervure and beyond lower angle of cell; a postmedial black line, prominent, sinuous, and outwardly oblique from costa to vein 3,

then almost obsolete and retracted along vein 2 to below angle of cell, the area beyond it suffused with rufous, leaving a white patch at apex and white specks on the inner side of the pale yellow marginal band, which has a minutely waved black line on its inner side. Hind wing with nearly straight antemedial black line; a discocellular spot; a postmedial line excurved beyond cell; the outer area suffused with rufous; a marginal yellow band with fine black line on its inner edge.

*Hab.* Sikhim. *Exp.* 20 millim.

## Genus **CATACLYSTA**.

Cataclysta, *Hübn. Verz.* p. 363 (? 1818).

Type, *C. lemnata*, Schiff., from Europe.

*Range.* Universally distributed.

Palpi upturned, the 2nd joint reaching vertex of head and slightly fringed with hair in front, the 3rd well developed and acuminate; maxillary palpi small and filiform; frons rounded; antennæ annulated with rings at the joints; legs long, slender, the spurs long and nearly equal. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9, 10. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, or stalked.

SECT. I. Fore tarsi of male naked; hind wing with vein 7 anastomosing with 8.

4646. **Cataclysta angulata**, *Moore, Lep. Ceyl.* iii, p. 300, pl. 181, fig. 12; *C. & S.* no. 4415.

♂. Fulvous yellow; some white on vertex of head and thorax. Fore wing with black subbasal and antemedial spots on costa with obscure lines arising from them; a postmedial white band curved and running as a fascia along median nervure to base, joined by two white fasciæ from upper angle of cell, and with its inner edge defined by fuscous suffusion and a black speck on costa; a submarginal curved white band with black line on its outer edge; a black marginal line. Hind wing with traces of a diffused fuscous antemedial band; a series of six small black spots close to the margin, inwardly defined by white.

*Hab.* Ceylon. *Exp.* 14 millim.

4647. **Cataclysta cræsusalis**, *Wlk.* xvii, p. 449.
Cataclysta trigonalis, *Swinh. A. M. N. H.* (6) xvi, p. 304.

♂. Dusky fulvous. Fore wing with large white triangular postmedial mark on costa, with its apex on vein 2; a white band inside the dark-edged orange marginal band; a marginal series of dark specks. Hind wing with the basal third pale fulvous; the outer two-thirds orange with a black line on its inner edge; a submarginal minutely waved dark line with pale marks on its

inner edge at costa and towards inner margin ; some dark marginal marks and four small black spots on medial part of margin.

*Hab.* Khásis ; Borneo. *Exp.* 16 millim.

4648. **Cataclysta trimacula,** *Hmpsn. Ill. Het.* viii, p. 139, pl. 155, fig. 14.

♀. Orange-yellow. Fore wing with the base whitish, suffused with fuscous below costa; a medial conical pale fuscous-irrorated patch with its apex below the costa; an oblique postmedial white band from costa to vein 5; a similar submarginal band tinged with fuscous at apex; a silvery fuscous spot near outer angle. Hind wing with the base whitish, followed by a broad yellow band; the postmedial area white, irrorated with brown scales on its inner side and on costal area; a marginal yellow band with three very large black spots on it centred with metallic blue.

*Hab.* Nilgiris. *Exp.* 18 millim.

*4649. **Cataclysta mesorphna,** *Meyr. Trans. Ent. Soc.* 1894, p. 10.

♂. Dark fuscous. Fore wing with orange antemedial band not reaching the costa and preceded by pale leaden lines; the apical area orange, with a long wedge-shaped postmedial leaden mark from costa; a silvery-white wedge-shaped dark-edged band from costa before apex to inner margin beyond middle; a leaden-coloured spot at anal angle. Hind wing with the disk irrorated with white; an orange fascia on inner area; a curved postmedial white line; four large black spots on outer margin separated by orange dots with golden scales above them, the 1st and 4th spots centred with gold; vein 7 anastomosing with 8 to apex; both wings with the cilia fuscous.

*Hab.* Shán States. *Exp.* 12 millim.

SECT. II. Fore tarsi in male with the proximal segments fringed with hair on both sides; hind wing with vein 7 coincident with 8.

4650. **Cataclysta fuscalis,** *Hmpsn. Ill. Het.* ix, p. 178, pl. 174, fig. 13.

♀. Grey thickly irrorated and suffused with fuscous black-brown. Fore wing with obscure fulvous oblique fascia from lower angle of cell to outer margin above outer angle; obscure dark-edged fulvous submarginal and marginal bands from costa to vein 3. Hind wing with double sinuous postmedial dark line well separated from the marginal yellow band, on which are five conjoined black spots centred with metallic blue, the spot nearest anal angle double.

*Hab.* Bhután, Ceylon. *Exp.* 14 millim.

4651. **Cataclysta blandialis,** *Wlk. Cat.* xvii, p. 448; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 15; *C. & S.* no. 4416.
Cataclysta patnalis, *Feld. Reis. Nov.* pl. 136, fig. 7; *C. & S.* no. 4425.

Cataclysta bombayensis, *C. & S.* no. 4417.
Cataclysta cuneifera, *Moore, Lep. Ceyl.* iii, p. 300, pl. 179, fig. 14; *C. & S.* no. 4418.
Cataclysta junctalis, *Hmpsn. Ill. Het.* viii, p. 140, pl. 155, fig. 24.
Cataclysta nigritalis, *Hmpsn. Ill. Het.* ix, p. 178, pl. 174, fig. 5.

Fulvous yellow; thorax suffused with fuscous. Fore wing fulvous yellow with the base fuscous and silvery, its outer edge oblique; a large conical medial patch with its apex on costa, whitish, thickly irrorated with brown and edged by silvery white lines; an oblique triangular silvery postmedial mark from costa to vein 5, sometimes white; a similar submarginal band from costa to vein 2, and an oblique silvery streak above outer angle. Hind wing with the base fuscous and silvery, followed by a fulvous-yellow band ending at anal angle; the rest of the wing white, thickly irrorated with brown scales; a more or less prominent black-edged yellow discocellular spot; a yellow and orange marginal band inwardly edged by a sinuous brown line and with four large black spots on it centred with metallic blue.

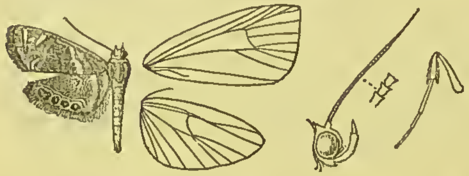

Fig. 116.—*Cataclysta blandialis*, ♂. $\frac{3}{2}$.

The form *patnalis* is small; the head, thorax, and abdomen grey or suffused with grey, wings paler; the whitish areas less suffused with brown; fore wing with the basal grey and silvery area conjoined along the costa to the medial patch; hind wing with the apical marginal spot formed of two conjoined spots with separate blue centres.

*Nigritalis* has the head, thorax, abdomen, and grey areas of the wing suffused with smoky black.

*Hab.* Dharmsála; Calcutta; Bombay; Nilgiris; Ceylon; Borneo; Amboina. *Exp.* (*patnalis*) 12–16, (*blandialis*) 16–20 millim.

## Genus SYMPHONIA, nov.

Type, *S. multipictalis*, Hmpsn.

*Range.* Ceylon.

Palpi upturned and hardly reaching vertex of head, the 2nd joint fringed with long hair in front, the 3rd with a small triangular tuft; maxillary palpi dilated with scales; frons rounded; antennæ of male thickened and flattened; tibiæ with the outer spurs half the length of inner, male with the claspers elongate. Fore wing with the outer margin slightly angled at middle, veins 3, 4, 5 from angle; 6 from below upper angle; 7 straight and well separated from 8, 9, 10; 11 free. Hind wing with the outer margin slightly angled at middle; the cell more than half the length of wing; veins 3, 4, 5 from angle; 6, 7 from upper angle.

4652. **Symphonia multipictalis**, n. sp.

♂. White; head, thorax, and abdomen variegated with pale brown and black; wings variegated and striated with yellow-brown, sepia, and black. Fore wing with the more prominent markings consisting of an irregular dark medial band conjoined to some yellow-brown patches beyond it, and with black spots on it at end of cell and on vein 1; a submarginal series of spots most prominent from below costa to vein 4, followed by some brown marks inside the margin, and a series of black marginal spots from costa to the angle. Hind wing with the more prominent markings consisting of some black marks at and below end of cell; some black marks below apex, followed by a red-brown patch; a marginal series of black spots.

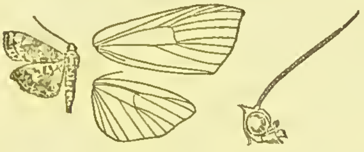

Fig. 117.
*Symphonia multipictalis*, ♂. ½.

*Hab.* Ceylon (*Pole*). *Exp.* 18 millim. Type in B.M.

## Genus MUSOTIMA.

Musotima, *Meyr. Trans. Ent. Soc.* 1884, p. 288.

Type, *M. aduncalis*, Feld., from New Zealand.
*Range.* S. India; Ceylon; Australia; New Zealand.

Palpi upturned, the 2nd joint not reaching vertex of head, and thickly fringed with hair, the 3rd well developed and spatulate at extremity; maxillary palpi short and filiform; frons rounded; antennæ of male thickened and flattened, with appressed serrations; tibiæ with the spurs long and equal; male with a tuft of long hair springing from base of fore coxæ. Fore wing with the apex produced and acute; the outer margin excised below apex; vein 2 curved and arising near angle of cell; 3, 4 from angle; 5 from above angle; 7 straight and well separated from 8, 9, 10; male with a more or less prominent foveal depression in cell. Hind wing with the outer margin excised below apex and towards anal angle; veins 3, 4 from angle of cell; 5 from above angle; 7 from before upper angle.

Sect. I. Outer margin of fore and hind wings deeply excised below apex; three indentations towards anal angle of hind wing.

4653. **Musotima suffusalis**, *Hmpsn. Ill. Het.* ix, p. 178 pl. 174, fig. 20

♂. Head and thorax fuscous and white. Fore wing yellow; the base fuscous and white; a very obscure antemedial dark line with a whitish patch beyond it on costa, angled on median nervure, and with fuscous suffusion beyond it on inner area; a postmedial white band from costa to vein 4, where it is bent inwards to a sharp point at lower angle of cell, its inner edge defined by a black spot on costa and line crossing the retracted portion; a sinuous

black-edged submarginal band arising from apex and recurved for a short distance above inner margin. Hind wing yellow suffused with black, except at base and on apical area; an antemedial white band expanding into a quadrate patch in end of cell, which has black spots at its two angles; a narrow crenulate postmedial black-edged band with a little white on it, and excurved beyond lower angle of cell; a sinuous white submarginal band with black outer edge; both wings with a marginal black line; the cilia fuscous and white.

*Hab.* Bangalore; Ceylon. *Exp.* 14 millim.

SECT. II. Fore and hind wings with the outer margin slightly excised below apex; hind wing excised but not indented towards anal angle.

4654. **Musotima acclaralis**, *Wlk. Cat.* xvii, p. 403; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 24; *C. & S.* no. 4389.

♂. Fulvous yellow; head and thorax marked with white; abdomen ringed with white, and tinged with fulvous towards extremity. Fore wing with the base of costa black; two obscure waved white subbasal bands, the inner not reaching costa; a black-edged waved white antemedial band expanding into a spot below cell; a large black-edged white discocellular lunule with two white spots on black suffusion between it and inner margin; a black-edged white postmedial band curved inwards and terminating at vein 3, a white spot inside it above vein 5; a sinuous black-edged white submarginal band becoming maculate towards inner margin; a black marginal line. Hind wing pale, with subbasal and antemedial lines, becoming black towards inner margin; a sinuous black-edged postmedial white band excurved beyond cell, and with black suffusion inside it towards inner margin; a black-edged fulvous marginal band with series of white specks inside it.

Fig. 118.—*Musotima acclaralis*, ♂. 1/1.

♀. With the white spot inside the postmedial band of fore wing absent; the whole outer half of fore wing and the apical and anal areas of hind wing usually suffused with dark brown.

*Hab.* Nilgiris; Ceylon. *Exp.* 18 millim.

## Genus CYMORIZA.

Cymoriza, *Guen. Delt. & Pyr.* p. 271 (1854).

Type, *C. irrectalis*, Guen.

*Range.* Himalayas; Assam; Java.

Palpi upturned, the 2nd joint reaching vertex of head and

thickly scaled, the 3rd well developed, acuminate, and conically scaled; maxillary palpi minute; frons produced to a rounded prominence; antennæ of male thickened and flattened; tibiæ clothed with rough hair on outer side, the spurs long and equal. Fore wing with veins 3, 4, 5 from angle of cell; 6, 7 stalked in male, and well separated from 8, 9, 10; a glandular swelling on costa just beyond the middle. Hind wing with the outer margin excised below apex, and twice towards anal angle; veins 3, 4, 5 from angle; 7 from before upper angle.

4655. **Cymoriza irrectalis**, *Guen. Delt. & Pyr.* p. 272 (part.); *C. & S.* no. 4391.

♀. Fulvous, suffused with fuscous; frons white; thorax and base of abdomen marked with white. Fore wing with the base white, except costal area; an oblique subbasal white band from subcostal nervure to inner margin; a sinuous antemedial white band expanding in cell and on inner margin; a black-edged white discocellular spot; a postmedial white band broad from costa to vein 3 and sending a spur inwards above vein 5, then incurved and maculate. Hind wing with white basal patch; a sinuous white antemedial band expanding in end of cell, and with the black discocellular spot on its outer edge; the postmedial band broad from costa to vein 5 and dentate on its inner side, then incurved, sinuous, and maculate; both wings with a black-edged orange marginal band with a series of black specks on it, and with a maculate white band inside it expanding below costa and on inner margin of hind wing; a black line through the cilia.

*Hab.* Sikhim; Bhután; Nágas. *Exp.* 24–30 millim.

4656. **Cymoriza ustalis**, *Wlk. Cat.* xxxiv, p. 1529.
Cymoriza irrectalis, *Guen. Delt. & Pyr.* p. 272 (part.), pl. 9, fig. 4.
Cymoriza fascialis, *Warr. A. M. N. H.* (6) xviii, p. 223.

Differs from *irrectalis* in the fore wing having the basal patch and subbasal band obsolescent; the antemedial band narrow and more regular; two obliquely placed black-edged white discocellular spots; the postmedial band maculate throughout, and not sending a spur inwards above vein 5; the white submarginal band expanding more below costa and at inner margin. Hind wing with the medial area wholly suffused with fuscous black; the antemedial white band not expanding in cell, and indented by the discocellular black spot; the postmedial band not dentate on inner side below costa.

Fig. 119.—*Cymoriza ustalis*, ♂. $\frac{1}{1}$.

*Hab.* Dharmsála; Kulu; Sikhim; Java. *Exp.* 36 millim.

## Genus THYSANOIDMA.

Thysanoidma, *Hmpsn. Ill. Het.* viii, p. 142 (1891).

Type, *T. octalis*, Hmpsn.
*Range.* Assam; Nilgiris.

♀. Palpi upturned, the 2nd joint not reaching vertex of head, and with a long pointed tuft of hair in front at extremity, the 3rd well developed and acuminate; maxillary palpi filiform; frons rounded; antennæ of female minutely ciliated; legs long and slender, the spurs nearly equal. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight, and well separated from 8, 9, 10; 11 from angle of cell. Hind wing with the outer margin much excised below apex, and with three indentations towards anal angle; the inner and outer margins towards anal angle fringed with long spatulate cilia of varying lengths; veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4657. **Thysanoidma octalis**, *Hmpsn. Ill. Het.* viii, p. 142, pl. 156, fig. 19.

♀. Head and thorax black and grey; abdomen fulvous yellow. Fore wing smoky black; traces of an antemedial pale line; a pale sinuous medial line, with a yellow patch beyond it, from costa to lower angle of cell, followed by a deeper black patch; the pale postmedial line nearly straight from costa to vein 2, then retracted to lower angle of cell, and excurved again; the apical area yellow, becoming white at apex; some dark marginal specks and a white spot above outer angle. Hind wing orange-yellow; the basal area smoky black, bounded by a pale sinuous antemedial line; a large black reniform discocellular spot; the postmedial pale line defined by black suffusion on inner side, curving round from costa to below lower angle of cell, then obsolete; some white spots on the margin.

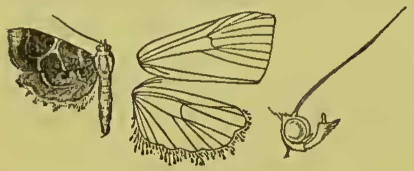

Fig. 120.—*Thysanoidma octalis*, ♀. $\frac{3}{2}$.

*Hab.* Margharita, Assam; Nilgiris. *Exp.* 16 millim.

## Genus AMBIA.

Ambia, *Wlk. Cat.* xix, p. 957 (1859).
Opisthedeicta, *Warr. A. M. N. H.* (6) vi, p. 478 (1890).

Type, *A. ptolycusalis*, Wlk., from Borneo.
*Range.* Neotropical region; India; Ceylon; Burma; Malayan subregion.

Palpi upturned, the 2nd joint reaching vertex of head and nearly naked, the 3rd long and acuminate; maxillary palpi filiform and of moderate length; frons rounded; legs of moderate length, the spurs long and equal. Fore wing with the apex slightly

produced; the outer margin somewhat excised below apex; veins 3, 4, 5 usually from angle of cell; 7 straight and well separated from 8, 9, 10. Hind wing with the apex produced; the outer margin somewhat excised below apex, and with two excisions towards anal angle; the inner margin very short; veins 3, 4 from angle of cell; 5 usually from somewhat above angle; 6, 7 from upper angle.

SECT. I. Fore wing with vein 11 absent; antennæ of male thickened and flattened.

A. *Both wings with veins* 4, 5 *stalked.*

4658. **Ambia tenebrosalis**, n. sp.

♂. Head and thorax fuscous irrorated with white; abdomen fuscous ringed with white, the anal tuft white; wings fuscous. Fore wing with indistinct dark subbasal line, with some white on its outer edge; two indistinct medial lines with a white patch on costa between them with a black speck on it; an oblique black-edged white band across apex, with a black costal speck on its inner edge; a black-edged fulvous marginal band. Hind wing with dark discocellular lunule and indistinct double sinuous postmedial line.

*Hab.* Ceylon (*Pole*). *Exp.* 12 millim. Type in B. M.

B. *Both wings with veins* 4, 5 *from cell.*

4659. **Ambia albipunctalis**, *Warr. A. M. N. H.* (6) xvii, p. 202.

♀. Fuscous brown; palpi below and legs pure white. Fore wing with obscure subbasal, ante- and postmedial dark lines, the two former arising from white specks on the costa; a triangular white spot on middle of costa, with the white discocellular lunule below it; the costal part of postmedial line white; a submarginal series of dark specks, the apical spot more prominent, and with white lunule on its inner edge. Hind wing with dark sinuous ante- and postmedial lines and submarginal series of dark specks.

*Hab.* Khásis; Ceylon. *Exp.* 10 millim.

4660. **Ambia xantholeuca**, n. sp.

♀. White; head, thorax, and abdomen marked with orange. Fore wing with subbasal and antemedial orange bands; a discocellular orange patch, with an oblique line from it to costa and small triangular spot on costa; a short medial band from vein 2 to inner margin; some black irroration beyond the discocellular patch; a postmedial fuscous line with some orange on its outer edge, excurved from costa to vein 2, then retracted and double; an orange marginal band, ending above outer angle. Hind wing with subbasal orange band; a black-edged orange medial band, with some black at costa and inner area, between it and the highly

sinuous black-edged white postmedial band, the area beyond which is orange, with a short black-edged white submarginal band between veins 3 and 1 *b*.

*Hab.* Ceylon (*Pole*). *Exp.* 14 millim. Type in B. M.

SECT. II. Fore wing with vein 11 present.

A. *Hind wing of male with no bands or fringes of hair beyond lower angle of cell.*

a. *Antennæ of male minutely ciliated; fore wing with no glandular swelling on middle of costa.*

4661. **Ambia colonalis**, *Brem. Lep. Ost-Sib.* p. 67, pl. 6, fig. 4.
Oligostigma locuples, *Butl. Ill. Het.* vii, p. 97, pl. 135, fig. 7.
Oligostigma dives, *Butl. Ill. Het.* vii, p. 97, pl. 135, fig. 8.

Yellow and white. Fore wing with two obscure dark-edged oblique white bands on basal area; a curved antemedial white band with dark outer edge; a dark-edged white discocellular spot; a postmedial band recurved beyond lower angle of cell to the discocellular speck; a submarginal band commencing as a small subapical triangular spot, recurved above inner margin, and expanding into a patch below end of cell. Hind wing with curved antemedial white band with dark outer edge; a discocellular black spot with white spots on its inner and outer edge; a curved postmedial dark-edged white band angled inwards on vein 2; a submarginal band expanding into a triangular spot below apex and sinuous towards inner margin; both wings with black marginal lines.

The form *colonalis* has the postmedial band of both wings broader than in *dives*, also the antemedial band of hind wing is broader, so that the black discocellular spot falls on its outer edge.

*Hab.* Amur; Dharmsála. *Exp.* 12–14 millim.

4662. **Ambia palliolatalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 287.

Bright fulvous yellow. Fore wing with the markings white, edged by black scales; a subbasal line; a spot in cell; an oblique line from middle of costa to lower angle of cell; a large hoop-shaped mark from cell to middle of inner margin; a postmedial line from costa to vein 4, where it is bent inwards for a short distance; the marginal area fuscous, with whitish specks on its inner edge. Hind wing whitish at base, the outer area yellow; a postmedial white line with dark inner edge recurved at vein 3 to angle of cell, then running to anal angle; a submarginal maculate dark-edged white line; a dark marginal line; both wings with the cilia black at base, white at tips.

*Hab.* Margharita, Assam; Rangoon. *Exp.* 14 millim.

4663. **Ambia instrumentalis**, *Swinh. A. M. N. H.* (6) xiv, p. 209.

♂. White. Fore wing with three rufous and fuscous spots on base of costa; a rufous and fuscous fascia from middle of cell to

costa before apex, and another from middle of cell along vein 2 to near margin, then bent upwards as a submarginal band to costa, and almost joining the subcostal fascia, thus forming an almost complete triangle; a marginal rufous and fuscous band from vein 2 to outer angle, then running along inner margin to middle. Hind wing with the medial area fuscous; the basal and outer areas white; a rufous and fuscous fascia on costa at apex.

*Hab.* Khásis. *Exp.* 12 millim.

b. *Antennæ of male with long cilia; fore wing with a glandular swelling on costa at middle.*

4664. **Ambia iambealis**, *Wlk. Cat.* xix, p. 950.
Musotima fulvalis, *Hmpsn. Ill. Het.* ix, p. 180, pl. 174, fig. 26 (♀).
Cymoriza albiflavidalis, *Warr. A. M. N. H.* (6) xviii, p. 223.

♂. Orange-yellow; head and thorax much marked with white; abdomen ringed with white. Fore wing with white spot at base; oblique subbasal and antemedial white bands; white streaks below the costal gland and in end of cell; a postmedial white band bent inwards at vein 5 and running to the discocellulars, a black line on its outer edge; a dark-edged curved submarginal band bent inwards above inner margin, and running to the antemedial band, but intersected by a yellow line, and connected with inner margin by a white spot before reaching it. Hind wing with subbasal and antemedial white bands; a postmedial white band with black line on its outer edge from costa to vein 5, where it emits a fascia to discocellulars; a black-edged band from vein 2 to inner margin; a sinuous black-edged submarginal white band from costa to vein 2.

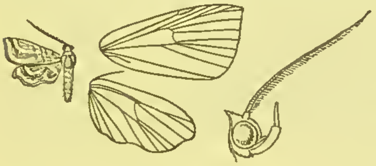

Fig. 121.—*Ambia iambealis*, ♂. $\frac{1}{1}$.

♀. Fulvous yellow, suffused with fuscous. Fore wing with the recurved part of the postmedial band represented by an obtuse pale streak; the recurved part of the submarginal band replaced by a triangular mark between lower angle of cell and inner margin. Hind wing with the fascia from postmedial band obsolete on upperside.

*Hab.* Khásis; Ceylon. *Exp.* 16–18 millim.

c. *Antennæ of male thickened and flattened; fore wing with a glandular swelling at middle of costa, with a hyaline fovea below it.*

4665. **Ambia marginalis**, *Moore, Lep. Atk.* p. 211; *C. & S.* no. 4393.
Cymoriza albicomma, *Swinh. A. M. N. H.* (6) xiv, p. 210.
Cymoriza fulvalis, *Warr. A. M. N. H.* (6) xviii, p. 224.

Orange-yellow. Fore wing with indistinct dark-edged sinuous antemedial white band; a black-ringed white spot in end of cell connected by a streak with the similarly coloured postmedial band, which is joined by another streak from beyond upper angle of

cell and terminates on vein 3; a narrow black-edged submarginal white band bent round above inner margin and expanding below end of cell. Hind wing with black-edged white discocellular speck; a postmedial curved band from costa to vein 3, continued to inner margin as an obscure dark line; a narrow black-edged submarginal white band ending before anal angle; both wings with marginal series of black spots; the cilia black and white.

*Hab.* Sikhim; Khásis. *Exp.* 22 millim.

4666. **Ambia magnificalis**, *Swinh. A. M. N. H.* (6) xvi, p. 299.
Cymoriza interruptalis, *Warr. A. M. N. H.* (6) xviii, p. 224.

♂. Black-brown; tarsi ringed with white. Fore wing with orange streak below base of median nervure; three white antemedial specks; the fovea large and white; a postmedial white band from costa to vein 5 and spot above inner margin, followed by a very indistinct fulvous band, enlarged and most prominent at inner margin; a fulvous marginal band with black edges, white marks on its inner edge, and dark streaks at the veins. Hind wing with orange spot below base of median nervure; black discocellular spot; postmedial sinuous white band interrupted between veins 5 and 2; an orange fulvous marginal band with black edges, white marks on its inner edge, and crossed by dark streaks at the veins.

*Hab.* Khásis. *Exp.* 20 millim.

B. (Opisthedeicta). *Hind wing of male with two long brands beyond lower angle of cell on upperside between veins* 2 *and* 4, *and two short brands below their extremity.*

4667. **Ambia poritialis**, *Wlk. Cat.* xix, p. 951; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 11; *C. & S.* no. 4394.

Yellowish white with fulvous markings; abdomen banded with fulvous, the terminal segment with two black spots and a white line. Fore wing with subbasal fulvous-edged white spot on costa; an antemedial white band with sinuous fulvous edges; a similar spot on costa, and band from subcostal nervure to below cell beyond it; a large fulvous-edged discocellular white spot; the medial part of costa spotted with fulvous and white; a postmedial triangular fulvous-edged white patch from below costa to vein 4; a sinuous fulvous-edged postmedial white band running out to an acute angle on vein 2 near the margin, then retracted to lower angle of cell and running obliquely to middle of inner margin, its inner edge defined by a prominent dark line from the costa to vein 2; a large apical fulvous-edged white spot, continued as a narrow maculate band to outer angle. Hind wing with subbasal fulvous spot; a nearly straight antemedial line, with a fulvous-edged triangular white patch beyond it from costa to vein 4; a sinuous postmedial dark-edged white band bent inwards at vein 4; a similar submarginal band angled inwards on vein 6 and dilated above anal angle; both wings with marginal fulvous band edged by black lines; the cilia fuscous.

Nilgiri specimens have the dark edges to the markings and the marginal band more prominent than specimens from other localities.

*Hab.* Nilgiris; Ceylon; Sumatra. *Exp.* 18–20 millim.

C. *Hind wing of male with fringes of hair along veins* 2, 3, 4 *on underside; the apical area clothed with thick fulvous scales; the inner margin with a lobe fringed with very long hair; the anal area clothed with hair; abdomen with paired tufts of black hair from base; the hind tibiæ fringed with blackish tufts on outer side.*

4668. **Ambia lobophoralis**, n. sp.

♂. Bright fulvous; head, thorax, and base of abdomen striped with white, the last with dark rings towards extremity. Fore wing with large white subbasal patch; black streaks on costa and subcostals to beyond end of cell; a white spot in end of cell and white streaks beyond upper and lower angles; two brown submarginal lines, with white patch inside it below costa, the lines curving inwards below vein 2 and enclosing a pale band between them, expanding into a large white spot above inner margin; the margin yellow; a dark line through the cilia. Hind wing more orange; a white basal patch with diffused fuscous on its outer edge; a white spot above the lobe; a series of black spots just inside the margin, with a black line on their inner side, obsolescent, except towards costa; a black streak with white spot inside it above anal angle; a black line through the cilia.

*Hab.* Sikhim (*Pilcher*); Nágas (*Doherty*). *Exp.* 18 millim. Type in coll. Elwes.

## Genus **OLIGOSTIGMA.**

Oligostigma, *Guen. Delt. & Pyr.* p. 260 (1854).

Type, *O. junceale*, Guen., from N. America.

*Range.* The tropical and warmer temperate zones.

Differs from *Nymphula* in the outer margin of hind wing being excised below apex, then lobed; the ocelli usually not so prominent.

In the typical species vein 10 of the fore wing sometimes arises from the cell.

Sect. I. Mid tibiæ of male without groove and tuft.

A. *Antennæ of male not thickened and flattened.*

a. *Hind legs of male without tufts of hair on the coxæ.*

4669. **Oligostigma hapilista**, *Swinh. Trans. Ent. Soc.* 1892, p. 20, pl. i, fig 11.

Oligostigma albidivisa, *Warr. A. M. N. H.* (6) xviii, p. 221.

♀. Head and thorax fuscous and grey; abdomen fulvous, the basal segment white. Fore wing with the basal half fuscous; the basal two-thirds of costa orange; a dark-edged triangular orange

mark arising from the subcostal nervure from middle to beyond end of cell, its apex curved and ending on vein 3 beyond the lower angle, where it is met by a curved submarginal dark-edged orange band, with a large orange patch between it and inner margin, where it is conjoined to the orange marginal band, which is defined by fine black lines; the ground-colour between the triangular patch, the submarginal and marginal bands, silvery white; cilia fuscous, blackish at base. Hind wing with the base fuscous, followed by a broad silvery-white band; the outer half orange, with curved black inner edge; a fine curved jet-black postmedial line from costa to vein 2; fine black marginal lines and line through the cilia interrupted by four black spots, with white between them at veins 6 to 3.

*Hab.* Khásis. *Exp.* 22 millim.

4670. **Oligostigma villidale,** *Wlk. Cat.* xvii, p. 435.
Hydrocampa sacadasalis, *Wlk. Cat.* xix, p. 963.
Oligostigma unilinealis, *Snell. Tijd. v. Ent.* xix, p. 197, pl. 8, fig. 2.

♂. Differs from *bilineale* in the fore wing having no black line through the cell; a discocellular black spot; no line from discocellulars to postmedial band. Hind wing with no subbasal line; a waved black line just inside the margin.

*Hab.* Margharita, Assam; Ceylon; Java; Borneo; Australia; Fiji. *Exp.* 18 millim.

4671. **Oligostigma fumibasale,** n. sp.

♀. Differs from *bilineale* in the thorax and abdomen being banded with fuscous. Fore wing suffused with fuscous to beyond the cell, and with no white fascia through the cell; no oblique white discocellular band meeting the postmedial white band; the submarginal band leaden colour; the orange areas of both wings deeper in colour. Hind wing with the postmedial white band more complete; a marginal black line, with a series of black specks just inside it developed into three white-centered ocelli at the lobe, which is slight.

*Hab.* Puttalam, Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

4672. **Oligostigma bilineale,** *Snell. Tijd. v. Ent.* xix, p. 196, pl. 8, figs. 1 *a–c*; *C. & S.* no. 4406.

Head white; thorax and abdomen white banded with fuscous. Fore wing white, the basal two-thirds of costal area fuscous; a fuscous line, with a few yellow scales on it, from base of inner margin to upper angle of cell, from which an oblique dark line runs to the angle of the dark-edged postmedial band, which at vein 2 is recurved to inner margin before middle; a submarginal dark-edged yellow band conjoined at vein 2 to the postmedial band, and at costa and inner margin to the black-edged yellow marginal band. Hind wing with the basal half white, with oblique black

subbasal and antemedial lines, the outer half yellow, with black inner edge; a black-edged postmedial white band from vein 6 to near inner margin; a marginal black line interrupted at the excision and lobe by four black spots with white patches between them.

*Hab.* Dharmsála; Calcutta. *Exp.* 14 millim.

4673. **Oligostigma angulipenne**, *Hmpsn. Ill. Het.* viii, p. 139, pl. 155, fig. 6.

♀. Head and thorax ochreous and fuscous; abdomen tinged with fulvous, the basal segment white. Fore wing fuscous; a fulvous fascia from base through the cell to beyond discocellulars, with black specks on it in cell and on discocellulars and a black line on its outer edge; an obscure fulvous fascia in interno-median interspace; a submarginal fulvous band terminating on vein 3, with black outer edge and a white band between it and the marginal orange band, which is defined by black lines. Hind wing with the base fuscous; a broad oblique antemedial white band; the outer area fuscous, with broad orange postmedial and marginal bands defined by black lines; a black line through the base of the cilia, interrupted by two black spots with white between them at the lobe; cilia of both wings fuscous.

*Hab.* Nilgiris. *Exp.* 18 millim.

4674. **Oligostigma parvale**, *Moore, P. Z. S.* 1877, p. 616; *C. & S.* no. 4412.

♀. Orange-fulvous; head, thorax, and abdomen marked with white. Fore wing with a white fascia on median nervure, met beyond the cell by the apex of a triangular patch which has its base on costa; a black-edged submarginal black band, narrowing and not reaching inner margin. Hind wing with white fascia along basal part of costa; a curved black-edged white postmedial band; a black marginal line and single black spot at the projection.

*Hab.* Andamans; Borneo. *Exp.* 14 millim.

4675. **Oligostigma conspurcatale**, *Warr. A. M. N. H.* (6) xvii, p. 202.

♂. Fuscous irrorated with grey. Fore wing with indistinct minutely waved antemedial dark line angled on median nervure; an obliquely sinuous postmedial line excurved between veins 7 and 3; a sinuous marginal fulvous band, inwardly edged by a black line with irregular white band inside it. Hind wing with waved dark ante- and postmedial lines; a series of black-and-white specks just inside the margin, which is tinged with fulvous.

*Hab.* Khásis. *Exp.* 16 millim.

4676. **Oligostigma fuscifusale**, *Hmpsn. Ill. Het.* ix, p. 177, pl. 174. fig. 28.

♂. Rufous-brown. Fore wing with obscure black speck at middle of cell and chestnut spot beyond discocellulars; the inner

medial area somewhat paler; a yellowish marginal band defined by fine black lines and with some whitish marks on its inner edge; cilia pale and fuscous. Hind wing with the base dark fuscous brown, followed by a medial pale fuscous band, then a chestnut band; a marginal yellowish band defined by black lines and with white inside it except towards costa; the marginal black line interrupted by white at the excision and lobe, and with one black speck on the lobe.

*Hab.* Khásis; Ceylon. *Exp.* 14 millim.

4677. **Oligostigma niveinotatum**, *Hmpsn. Ill. Het.* ix, p. 176, pl. 174, fig. 32.

Head and thorax dark brown and white; abdomen orange ringed with black, the basal segment white, the extremity fuscous. Fore wing fuscous; an orange fascia on postmedial part of costa; an obscure orange fascia through the cell, extending beyond it and with a black mark in end of cell; an oblique white band at middle of inner area from below vein 2 to inner margin; a postmedial white patch between veins 6 and 2; a broad submarginal white band, rounded off below costa and tapering to above inner margin; a marginal orange band, with a series of black spots on it. Hind wing with the basal area white, with dark patch at base of inner area; the outer area greyish fuscous, with a medial line angled above vein 5 and defined on its outer side by orange, which is diffused outwards above middle to the lobe; a submarginal lunulate orange-and-black line running out to the margin at the lobe; a black line through base of cilia interrupted at the lobe by two black spots, with white above them and orange inside them; cilia of both wings fuscous and grey.

*Hab.* Ceylon. *Exp.*, ♂ 22, ♀ 26 millim.

b. *Hind legs of male with large tufts of curved hair extending backwards from the coxæ.*

4678. **Oligostigma picale**, *Guen. Delt. & Pyr.* p. 274; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 23.

♂. Head, thorax, and abdomen fuscous and white. Fore wing fuscous, with a large white patch covering the whole basal area except costa, and bounded by an oblique dark antemedial band arising from an orbicular mark in cell; the whole medial area white except the costa, and a large oval postmedial fulvous mark below costa with dark edges and dark centre; a postmedial line excurved between veins 5 and 2, then bent inwards to below angle of cell, the area beyond it fuscous towards inner margin, and with a large white patch from costa to vein 4 and small spot below vein 2; a marginal orange

Fig. 122.—*Oligostigma picale*, ♀. $\frac{3}{2}$. (Details of ♂.)

band defined inwardly by a black line and outwardly by a maculate line. Hind wing with the basal half white, with dark patch on base of inner area; the outer half greyish fuscous, with slightly sinuous postmedial fulvous band; a marginal series of black spots; two black spots and two white specks at the lobe, with orange inside them; cilia of both wings fuscous.

♀ with the whole of fore wing fuscous, obscuring the markings as far as the white submarginal patch, except a white patch on middle of inner margin.

*Hab.* Ganjam; Ceylon. *Exp.*, ♂ 14, ♀ 16 millim.

B. *Antennæ of male thickened and flattened by appressed serrations.*

4679. **Oligostigma dianale,** *Hmpsn. Ill. Het.* ix, p. 177, pl. 174, fig. 27.

♂. Head and thorax fulvous, the vertex of head white, the prothorax and a spot on metathorax white; abdomen orange, the extremity white. Fore wing fulvous, the costal area and apical third of wing orange; the cell striated with silvery grey; a grey fascia below median nervure; a white fascia on middle of inner margin; a postmedial black spot on costa; a postmedial oblique white line from subcostals to vein 4; a submarginal white band with black outer edge; a marginal series of black spots. Hind wing fulvous; a broad oblique white antemedial band; the apical area tinged with orange, with a silvery-white spot; three black spots on the lobe, the upper one with silvery-white centre; the anal area orange; cilia of both wings pale grey, with silvery bases on hind wing, except towards anal angle.

*Hab.* Ceylon. *Exp.* 14 millim.

SECT. II. Mid tibiæ of male with a tuft of long hair contained in a groove.

A. *Male without tufts of hair on base of mid and hind femora.*

4680. **Oligostigma pulchellale,** *Hmpsn. Ill. Het.* ix, p. 178, pl. 174, fig. 30.

♂. Head white; the palpi dark rufous; thorax dark rufous and white. Fore wing with a slight white line on basal half of costa; a subcostal yellow fascia; a silvery fascia in cell; a dark-edged yellow fascia below median nervure; the inner area white, with a curved dark-edged yellow fascia from near base of inner margin to outer angle, enclosing a dark mark on middle of inner margin; a postmedial dark-edged fulvous triangular patch obscurely differentiated on its inner side from the basal fasciated area, and joined at vein 3 by a curved fulvous submarginal band, with a white patch inside it and a white band beyond it; a marginal yellow band defined by fine black lines. Hind wing white, with a dark rufous patch on basal inner area; a diffused rufous patch in end of cell joined by a curved line from costa; an ill-defined sinuous rufous submarginal band conjoined to a patch on the lobe,

which has three black spots with white lunules above them; a fine marginal black line; cilia of both wings white intersected with fuscous.

*Hab.* Khásis; Ceylon. *Exp.* 12 millim.

B. *Male with short tufts of hair from base of mid and hind femora, hind tibiæ, and on 5th segment of abdomen below.*

4681. **Oligostigma ornatum**, *Moore, Lep. Ceyl.* iii, p. 299, pl. 181, fig. 11; *C. & S.* no. 4424.

Silvery white; palpi and shoulders dark brown; abdomen with a yellow band on 2nd segment. Fore wing with the costa fuscous; a yellow fascia on medial part of inner area expanding outwardly; an oblique dark line from lower angle of cell to inner margin; a postmedial black spot on costa; a dark-edged golden-yellow lunule beyond discocellulars, with a fuscous line from its lower edge to inner margin; a submarginal golden-yellow band tapering to inner margin and with dark outer edge; a marginal golden band defined by fine black lines. Hind wing with oblique subbasal golden-yellow band; a postmedial golden-yellow band from below apex, its medial part defined by fuscous lines and conjoined below apex to the marginal yellow band, which is defined by fine black lines and below the lobe has three black spots, the two upper with white lunules above them.

*Hab.* Ceylon. *Exp.* 24 millim.

C. *The tufts on hind femora developed into large tufts directed towards the base and enclosing a hollow, abdomen without tufts.*

4682. **Oligostigma bifurcale**, *Pryer, Cist. Ent.* ii, p. 232, pl. 4, fig. 4.

♂. Head, thorax, and abdomen yellow and white. Fore wing white, with the costal half to end of cell suffused with fuscous; an obscure fuscous triangular postmedial mark with its apex on inner margin, its inner limb with a black speck on costa and enclosing a yellow patch beyond discocellulars; a yellow fascia on middle of inner area expanding outwardly; a submarginal yellow band with fuscous outer edge terminating above inner margin and with a white band between it and the marginal yellow band, which is defined inwardly by a black line, outwardly by a series of black strigæ. Hind wing white at base, followed by a broad black-edged subbasal yellow band, then a white medial band; the outer area yellow, with black inner edge; a small white apical patch; incomplete waved black submarginal and marginal lines, interrupted at the lobe by three black spots, the uppermost with a white spot inside it.

*Hab.* Chekang, China; Khásis; Shán States. *Exp.* 24 millim.

## Genus AULACODES.

Aulacodes, *Guen. Delt. & Pyr.* p. 258 (1854).
Hydrophysa, *Guen. Delt. & Pyr.* p. 259 (1854).

Type, *A. æchmialis*, Guen., from Brazil.

*Range.* Neotropical region: Oriental region to Celebes.

Palpi upturned and hardly reaching vertex of head, the 2n joint fringed with long hair in front, the 3rd short, with a small triangular tuft; maxillary palpi as long as labial and dilated with scales at extremity; antennæ of male thickened and flattened, with appressed serrations; ocelli usually indistinct; legs very long and slender; mid tibiæ of male with a tuft of long hair contained in a fold; wings long and narrow. Fore wing with vein 3 from angle of cell, which has the lower part extremely produced and the discocellulars very oblique; 7 straight and well separated from 8, 9, 10; 11 from near end of cell, touching or anastomosing with 8, 9, 10. Hind wing with vein 3 from before lower angle of cell, which is very much produced, and the discocellulars oblique; 6, 7 from upper angle, 7 anastomosing with 8, which is much curved; the outer margin excised below apex and lobed at vein 5.

In the typical species the secondary sexual characters consist of fringes of hair on fore coxæ and femora, and a very long fringe on each side of medial spur of hind tibiæ.

SECT. I. Fore and hind wings with veins 4, 5 stalked; antennæ of male with no process on basal joint; a small fovea in end of cell of fore wing.

4683. **Aulacodes colonialis**, *Guen. Delt. & Pyr.* p. 262; *Snell. Tijd. v. Ent.* xix, p. 198, pl. 8, figs. 3 *a–d*; *C. & S.* no. 4407.

♂. Head, thorax, and abdomen whitish, yellow, and fulvous. Fore wing white, with the costal area fulvous; a broad yellow fascia on inner area; a curved yellow fascia from upper angle of cell to vein 2, where it is joined by a submarginal band; a dark fulvous band between them from subcostals to vein 4; a yellow marginal band defined by fine black lines. Hind wing white, with broad oblique yellow band from below apex to middle of inner margin, where it expands; a yellow marginal band defined by fine black lines from the lobe to anal angle, and with three black spots below the lobe, the two upper with large silvery-white pupils.

*Hab.* Sikhim; Bombay. *Exp.* 24 millim.

SECT. II. Fore and hind wings with veins 4, 5 from angle of cell; antennæ of male with a curved clubbed process from inner side of basal joint.

A. *Male with no tuft on hind femora; fore wing with a small costal fold at base and no costal fringe; the tuft of scales confined to end of cell and no sparse fringe on median nervure.*

4684. **Aulacodes sejunctalis**, *Snell. Tijd. v. Ent.* xix, p. 207, pl. 9, fig. 11; *C. & S.* no. 4413.

Cataclysta delicata, *Moore, Lep. Ceyl.* iii, p. 556, pl. 215, fig. 5; *C. & S.* no. 4419.

Differs from *peribocalis* in the postmedial triangular patch of

fore wing being narrow and more elongate. Hind wing with a small dark mark at base of inner area widely separated from the broad yellow postmedial band; the silvery-white specks placed between the black spots instead of on them.

*Hab.* Dharmsála; Sikhim; Ceylon. *Exp.*, ♂ 18–30, ♀ 22 millim.

4685. **Aulacodes plicatalis**, *Wlk. Cat.* xxxiv, p. 1332.
Oligostigma simplicialis, *Snell. Tijd. v. Ent.* xix, p. 201, pl. 8, fig. 6.

Head, thorax, and abdomen white tinged with fawn colour. Fore wing white, with the costa fawn-coloured; some obscure brownish suffusion in cell and on median nervure; a curved yellow fascia from inner margin near base to near outer angle, where it is joined by a triangular fulvous patch from costa beyond middle with dark sinuous edges and a dark-edged fulvous submarginal band; a marginal yellow band defined by fine black lines. Hind wing white; a dark-edged yellow patch on inner area near base; a broad curved dark-edged yellow postmedial band, diffused outwards to the margin below apex; a marginal yellow band defined by fine black lines and with three white-centred black spots on it between veins 5 and 2.

*Hab.* Dharmsála; Sikhim; Java; Celebes. *Exp.* 28–36 millim.

B. *Hind femora of male with a thick tuft of short hair near extremity.*

a. *Fore wing with a slight costal fringe of hair on upperside; a thick ridge of large scales from base through the cell, widening towards end of it.*

4686. **Aulacodes hamalis**, *Snell. Tijd. v. Ent.* xix, p. 199, pl. 8, fig. 4 *a–c*; *C. & S.* no. 4410.
Cataclysta ochripicta, *Moore, Lep. Atk.* p. 209; *C. & S.* no. 4423.

Differs from *plicatalis* in the markings being more orange and much more extensive. Fore wing with the postmedial triangular mark shorter and ending above the fascia on inner area, which has no dark edges. Hind wing with the medial white area very much reduced, the postmedial band with dark inner edge in specimens from the N.W. Himalayas, without dark edge in specimens from Sikhim and the Nilgiris; the marginal band with two black spots, the lower spot in Nilgiri specimens without a white centre.

*Hab.* N.W. Himalayas; Sikhim; Nilgiris. *Exp.* 22–26 millim.

4687. **Aulacodes melanops**, n. sp.

♂. Orange. Fore wing with a small tuft of black hair at base; an S-shaped dark line beyond cell from below costa to vein 2, with a triangular whitish patch on its outer edge; a submarginal white band from below costa ending in a point on vein 2, defined by

fuscous on inner side and a black line on outer; a marginal black line; the cilia intersected with black. Hind wing with wedge-shaped whitish medial band defined by fuscous lines from costa to lower angle of cell; four large white-centred black spots on margin on a pale patch, defined on inner side by a fuscous submarginal line which runs across the apex and is angled inwards on vein 1.

*Hab.* Sikhim (*Pilcher*). *Exp.* 28 millim. Type in B. M.

b. *Fore wing of male with sparse fringe of long hair from median nervure, the tuft of large scales confined to the end of cell.*

4688. **Aulacodes peribocalis**, *Wlk. Cat.* xvii, p. 446; *C. & S.* no. 4426.
Cataclysta halialis, *Wlk. Cat.* xvii, p. 447; *C. & S.* no. 4421.
Cataclysta sabrina, *Pryer, Cist. Ent.* ii, p. 232, pl. 4. fig. 3.
Oligostigma papulalis, *Snell. Trans. Ent. Soc.* 1890, p. 640.

Head, thorax, and abdomen white and pale yellow. Fore wing white, with the costal area yellow tinged with fulvous; the tuft of scales in cell white or fuscous; vein 2 streaked with yellow; an oblique triangular dark-edged yellow mark from costa beyond middle to vein 2; a dark-edged curved yellow fascia from near base of inner margin to outer angle; a submarginal yellow band with dark outer edge from costa to vein 2; a marginal yellow band

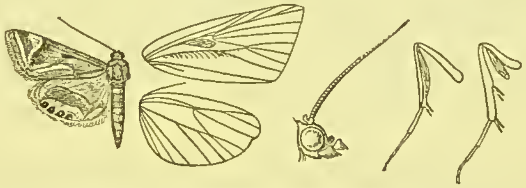

Fig. 123.—*Aulacodes peribocalis*, ♂. 1/1.

defined by fine black lines. Hind wing white, with yellow subbasal patch on inner area conjoined to a very broad curved submarginal yellow band, with a fuscous V-shaped mark between them, the outer edge of the submarginal band dark; four white-centred black spots on a yellow marginal line between veins 5 & 1*c*.

The markings of fore wing, except the fascia on inner area and the marginal band, sometimes fulvous.

*Hab.* Aden; China; N.W. & E. Himalayas; Nilgiris; Burma. *Exp.* 28–36 millim.

4689. **Aulacodes saturatalis**, *Snell. Trans. Ent. Soc.* 1890, p. 639.

Differs from *plicatalis* in being bright orange. Fore wing with no dark line on inner edge of the submarginal orange band. Hind wing with no dark edge to the subbasal patch and no dark inner edge to the broad postmedial band, the costal portion of which is suffused over the whole apical area, embracing the three ocellate spots.

*Hab.* Sikhim. *Exp.*, ♂ 20, ♀ 22–30 millim.

4690. **Aulacodes dominalis**, *Wlk. Cat.* xxxiv, p. 1337; *C. & S.* no. 4420.
Oligostigma peribocalis, *Hmpsn. Ill. Het.* viii, pl. 156, fig. 4; (*nec Wlk.*).

Differs from *peribocalis* in the markings of fore wing being fulvous; the marginal band and usually the fascia on inner area yellow. Hind wing with a small dark patch at base of inner area widely separated from the postmedial band; the marginal black spots elongate and indented below the white centres, the lowest spot obsolescent and without white centre.

*Hab.* Nilgiris. *Exp.*, ♂ 24–30, ♀ 40 millim.

## Genus PARTHENODES.

Parthenodes, *Guen. Delt. & Pyr.* p. 252 (1854).
Paracymoriza, *Warr. A. M. N. H.* (6) vi, p. 479 (1890).

Type, *P. hydrocampalis*, Guen., from Brazil.

*Range.* Neotropical and Ethiopian regions; India; Burma; Sumatra; Java.

Palpi porrect, straight, and projecting about the length of head, the 2nd joint fringed with hair below, the 3rd short and naked; maxillary palpi large and triangularly scaled; frons rounded; antennæ of male thickened and flattened; legs naked, the outer spurs about two-thirds length of inner. Fore wing with veins 3, 4, 5 from angle of cell, 7 straight and well separated from 8, 9, 10. Hind wing with vein 3 from angle of cell, which is about half the length of wing; 4, 5 approximated for a short distance; 6, 7 from upper angle.

Sect. I. (*Parthenodes*). Mid tibiæ of male with no fold or fringe of hair; hind coxæ without tufts; wings with the outer margin evenly rounded.

4691. **Parthenodes olivalis**, *Hmpsn. Ill. Het.* viii, p. 140, pl. 155, fig. 8 (♂).
Paracymoriza dentifascialis, *Hmpsn. Ill. Het.* viii, p. 141, pl. 155, fig. 21 (♀).

♂. Olive-brown suffused with fuscous and grey; abdomen with pale rings. Fore wing with obscure curved subbasal and antemedial pale lines; the latter dentate below vein 2; a white spot on discocellulars, with diffused black patch beyond it; a black-edged white postmedial line minutely waved from costa to vein 3, then retracted to lower angle of cell and strongly angled outwards above inner margin; a series of black and white submarginal lunules, the 3rd from costa expanding into a large white spot. Hind wing fuscous; a dark discocellular spot with oblique line from it to near anal angle; the postmedial line excurved from costa to vein 2, then incurved and almost joining the antemedial line; a dark submarginal line; both wings with the base of cilia black.

♀. Darker; the thorax more suffused with white. Fore wing

with the lines and submarginal lunules prominently white; the medial area suffused with white, on which the black patch beyond the cell stands out prominently and with a crescentic white mark below it. Hind wing with the medial area whitish; the two lines well separated towards inner margin; some white on inner edge of submarginal line.

*Hab.* Nilgiris. *Exp.*, ♂ 36, ♀ 52 millim.

4692. **Parthenodes exsolvalis**, *Snell. Midd.-Sum.* iv, pt. 1, p. 76.
Cymoriza rivularis, *Moore, Lep. Atk.* p. 210, pl. 7, fig. 8; *C. & S.* no. 4395.

Red-brown suffused with fuscous; palpi white below; head variegated with white; abdomen ringed with white. Fore wing with obscure dentate white subbasal line; an oblique waved white medial line; a white lunule in end of cell; a double spot below it; the postmedial white line angled outwards below costa, excurved to vein 3, retracted to angle of cell, waved to inner margin, and with three short white streaks inside it beyond the cell; a submarginal series of white spots, the 3rd from apex largest, no spot between veins 4, 5. Hind wing fuscous, with white ante- and postmedial lines almost meeting above anal angle, the latter angled outwards at vein 3 and the space between them white, leaving narrow dark bands inside the lines; a submarginal series of white spots except between veins 4, 5, the spot between veins 2, 3 largest, and those towards anal angle conjoined

*Hab.* Sikhim; Khásis; Bernardmyo, Burma; Sumatra. *Exp.*, ♂ 24, ♀ 36 millin.

4693. **Parthenodes stellata**, *Warr. A. M. N. H.* (6) xvii, p. 203.

♂. Head, thorax, and abdomen black with a few grey scales, the last with the terminal segments fulvous. Fore wing with the basal area blackish, bounded by a dark-edged white line angled in the cell; the rest of the wing fulvous, whitish towards costa, and with a very large apical black patch extending down to vein 3; a postmedial sinuous pale line recurved at vein 2 to lower angle of cell; a submarginal series of white spots prominent towards apex; cilia whitish, fuscous at apex and middle. Hind wing pale fulvous, the basal area blackish; pale waved subbasal ante- and postmedial lines; a discocellular black spot; a submarginal series of white marks; cilia white intersected with pale brown.

♀ with the fore wing almost wholly suffused with black.

*Hab.* Khásis. *Exp.* 16 millim.

4694. **Parthenodes albifascialis**, *Hmpsn. Ill. Het.* viii, p. 140, pl. 156, figs. 1–9.
Paracymoriza semialbida, *Warr. A. M. N. H.* (6) xvii, p. 203.

♂. Head, thorax, and abdomen black and white. Fore wing black, with curved white subbasal and antemedial lines; a broad

medial white band; a discocellular fulvous spot; the veins beyond the cell streaked with white; a dark-edged white postmedial line nearly straight from costa to vein 2, then retracted to lower angle of cell, and slightly angled outwards on vein 1; some fulvous on costa towards apex; the inner area fulvous beyond the postmedial line. Hind wing black, with broad medial white band defined on inner and outer sides by a black-edged white line, the outer angled outwards on vein 2; the outer area fulvous below middle. Both wings with narrow black-edged fulvous marginal band, with large white spot on its inner side below apex of fore wing and two spots above outer angle; hind wing with a white line below the costa and a maculate band from vein 2 to near anal angle.

♀ with the fore wing uniform black except the apical fulvous and white patches, the two white spots above outer angle, and the marginal fulvous band.

*Hab.* Khásis; Nilgiris. *Exp.*, ♂ 22, ♀ 26 millim.

4695. **Parthenodes nigriplaga**, *Swinh. A. M. N. H.* (6) xiv, p. 209.

♂. Head and thorax black; abdomen fulvous, ringed with black; wings black, with orange marginal band with a fine black line on its inner edge, inside which is a maculate white line; a marginal series of black specks; a marginal black line and line through the cilia. Fore wing with white spots in and beyond end of cell below the subcostals. Hind wing with white spots at lower angle of cell and orange patch at anal angle. Underside whitish towards base of wings.

*Hab.* Khásis. *Exp.* 22 millim.

Sect. II. (*Paracymoriza*). Mid tibiæ of male dilated, with a fold containing a fringe of hair; tufts of hair from base of hind coxæ; wings with the outer margin somewhat excurved at middle.

4696. **Parthenodes inextricata**, *Moore, Lep. Atk.* p. 210, pl. 7, fig. 7; *C. & S.* no. 4390.

Reddish brown suffused with fuscous; head and thorax irrorated with grey; abdomen tinged with white. Fore wing with white streaks from base below costa, in and below cell, the two lower extending to the obliquely curved antemedial line; a black discocellular lunule; the postmedial white line angled below costa, then incurved to vein 5, excurved to vein 2, retracted to lower angle of cell, and strongly angled outwards on vein 1; a sinuous white submarginal line giving off two fasciæ above middle, the upper crossing the postmedial line, the lower terminating at it; the outer area from costa to vein 3 suffused with black. Hind wing with the medial area pale, defined on inner side by an oblique fuscous-edged pale line and on outer side by a similar sinuous line bent inwards at vein 3 and terminating at anal angle; a

submarginal white line, maculate and interrupted towards costa; both wings with a narrow black-edged fulvous marginal band.

*Hab.* Sikhim. *Exp.* 36 millim.

4697. **Parthenodes vagalis**, *Wlk. Cat.* xxxiv, p. 1530; *C. & S.* no. 4401.

Olive-brown suffused with fuscous; head and thorax much marked with white; abdomen ringed with white. Fore wing with the basal area suffused with white; a subbasal white line bidentate

Fig. 124.—*Parthenodes vagalis*, ♂. 1/1.

in cell; a sinuous dark-edged antemedial white line; the medial area white; a dark-edged white postmedial line angled outwards below costa, running with a double curve to vein 2, then retracted in another double curve to lower angle of cell, and very acutely angled outwards above inner margin, some white on its inner side below costa; a minutely waved dark-edged submarginal white line sending two fasciæ inwards above middle. Hind wing with obscure white subbasal line; the medial area white, with olive discocellular spot, defined on inner side by a black-edged oblique pale line from cell to inner margin, on outer side by a similar line with fuscous suffusion beyond it, angled outwards on vein 3 and terminating at anal angle; a submarginal black-edged white band with a small dentition at vein 6, interrupted by a black spot at vein 4, and expanding slightly towards anal angle.

*Hab.* Punjab; Dharmsála; Nilgiris; Java. *Exp.*, ♂ 26, ♀ 26–32 millim.

4698. **Parthenodes aurantialis**, *Swinh. A. M. N. H.* (6) xvi, p. 304.

Differs from *vagalis* in the ground-colour being bright orange, the black lines and white markings more sharply defined. Fore wing with the angle of the medial band on vein 1 more acute; the white streaks from the submarginal band almost touching the post-medial curved band. Hind wing with a prominent black spot on the submarginal band opposite the angulation of the margin; both wings with prominent orange marginal band; the cilia white, with black line at base.

*Hab.* Khásis. *Exp.* 22–30 millim.

*4699. **Parthenodes ? gangeticalis**, *Led. Wien. ent. Mon.* 1863, pp. 453, 485, pl. 18, fig. 5 (nec 4); *C. & S.* no. 4398.

Pale brown, the wings suffused with golden yellow. Fore wing with dark-edged subbasal white band running out to a very acute angle on median nervure and slightly angled on vein 1; an ante-

medial band slightly excurved from costa to median nervure, very highly excurved below the cell; a submarginal band curved from costa to vein 2, then recurved to upper angle of cell and running with two curves to outer angle; an irregular series of white marginal blotches sending two streaks across the submarginal band below the apex. Hind wing with dentate subbasal line; a dark-edged sinuous antemedial white band; a dark-edged white band arising from the apex, curving round to costa near the antemedial band, then sinuous and joining the antemedial band just above inner margin; some irregular white spots on the margin.

*Hab.* "India." *Exp.* 17 millim.

## Genus **DAULIA**.

Daulia, *Wlk. Cat.* xix, p. 975 (1859).
Girtexta, *Swinh. Trans. Ent. Soc.* 1890, p. 285.

Type, *D. afralis*, Wlk.

*Range.* Bhután; Assam; Nilgiris; Burma; Borneo.

Palpi porrect; about twice as long as head, triangularly scaled, and the 3rd joint hidden by hair; maxillary palpi dilated with scales; frons rounded; antennæ minutely annulated; mid tibiæ of male with a tuft of hair in a fold; hind tibiæ with the outer medial spur minute. Fore wing with vein 3 from angle of cell; 4, 5 approximated for a short distance in male, which has slight foveal depressions in the membrane in end of cell and beyond discocellulars above and below vein 6; 7 straight and well separated from 8, 9, 10. Hind wing with veins 4, 5 closely approximated for some distance, 3 being also approximated to them in male; the cell short; 6, 7 from upper angle.

4700. **Daulia afralis**, *Wlk. Cat.* xix, p. 975.
Girtexta argentuosalis, *Swinh. Trans. Ent. Soc.* 1890, p. 286.

Bright orange-yellow; abdomen with a silvery dorsal mark on 1st segment and dark bands towards extremity. Fore wing with a silvery costal fascia from base to middle; silvery fasciæ on median nervure and vein 1; an antemedial silvery band and medial band from cell to inner margin; short fasciæ from discocellulars along subcostals and vein 5; a postmedial spot above inner margin; a postmedial band from costa to vein 3; a submarginal band from below costa to vein 2 and an oblique streak near outer angle. Hind wing pale, the area between veins 2 and 5 yellow with a medial silvery spot, two postmedial spots, and a submarginal band continued to apex; the area at anal angle yellow, with a silvery spot with dark edges; both wings with a fine marginal dark line; the cilia white.

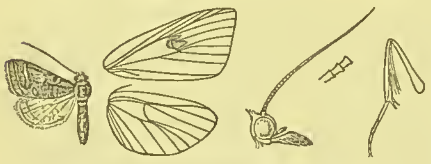

Fig. 125.—*Daulia afralis*, ♂. 1/1.

*Hab.* Bhután; Nilgiris; Burma; Borneo. *Exp.* 16–22 millim.

4701. **Daulia aurantialis**, n. sp.

♂. Differs from *afralis* in being much brighter orange; fore legs orange, the tarsi pure white. Fore wing with no silvery streaks from base on costa, or median nervure or above inner margin; an indistinct yellow subbasal band; the medial band yellow with a few silver scales on its edges; three black specks on costa; the silvery streaks beyond the cell obsolescent; the postmedial spot above inner margin oblique, the spot near outer angle small, and all the markings of outer area less prominently silvery; cilia orange at base. Hind wing without the pale areas; an oblique medial yellowish band terminating at anal angle; the postmedial and submarginal bands continued to costa; cilia orange at base.

*Hab.* Nágas (*Doherty*). *Exp.* 20 millim. Type in coll. Elwes.

## Genus TALANGA.

Talanga, *Moore, Lep. Ceyl.* iii, p. 300 (1885).

Type, *T. sexpunctalis*, Moore.

*Range.* Oriental and Australian regions.

Palpi short, porrect, and fringed with long hair below, the 3rd joint prominent; maxillary palpi filiform and nearly as long as the labial; frons rounded; antennæ nearly simple; tibiæ with the outer spurs less than half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell, 7 straight and well separated from 8, 9, 10. Hind wing with the cell short; veins 3, 4, 5 from angle of cell; 6, 7 shortly stalked.

4702. **Talanga sexpunctalis**, *Moore, P. Z. S.* 1877, p. 616, pl. 60, fig. 12; *C. & S.* no. 4414.
Glyphodes lomaspilalis, *Snell. Tijd. v. Ent.* xxiii, p. 223.
Cataclysta nympha, *Butl. P. Z. S.* 1880, p. 683.

Head, thorax, and abdomen pale ochreous; palpi and shoulders fuscous; anal tuft of male black. Fore wing bright yellow; a brown fascia on basal part of costa; silvery-white fasciæ in cell and above vein 1, on which there is a dark streak; a large brown triangular patch from middle of costa, with the silvery blue discocellular line on it and a silvery-white band on its outer edge; brown patches on costa before and at apex, with curved silvery-white bands extending from them to vein 2; a fine marginal black line; the cilia white. Hind wing yellowish white; a bright yellow band beyond lower angle of cell between veins 5 and 2, with silvery blue on its outer edge; a bright yellow patch on middle of outer area, with two black spots below it centred with metallic colours, above the spots are some black and metallic specks on the margin, and outside

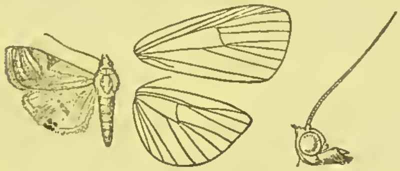

Fig. 126.—*Talanga sexpunctalis*, ♂. 1/1.

them are four black spots with white spots between them, and the cilia at that point cupreous fuscous.

*Hab.* Formosa; Dharmsála; Sikhim; Bombay; Nilgiris; Ceylon; Andamans; Borneo; Celebes; New Britain; New Hebrides. *Exp.* 20–24 millim.

## Genus **NIPHOSTOLA**, nov.

Type, *N. micans*, Hmpsn.

*Range.* Khásis; Nágas.

Palpi upturned, the 2nd joint thick and reaching vertex of head, the 3rd minute and blunt; maxillary palpi well developed and slightly dilated with scales; frons rounded; antennæ of male somewhat thickened and flattened; tibiæ smooth, the spurs long and equal. Fore wing with the apex rounded; vein 3 from before angle of cell; 7 straight and well separated from 8, 9, 10; the inner margin slightly lobed at base. Hind wing with the costa lobed at base; veins 3, 4, 5 from angle of cell; 6, 7 stalked, 7 anastomosing with 8 almost to apex or becoming coincident with it.

4703. **Niphostola micans**, n. sp.

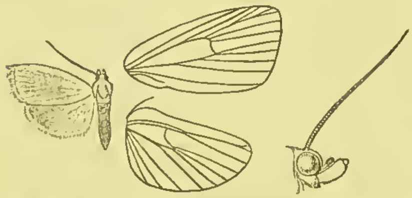

Fig. 127.—*Niphostola micans*, ♂. 1/1.

♂. Pure glittering white; palpi tinged with fuscous at sides; hind wing with the apical area slightly tinged with fuscous; underside of fore wing fuscous.

*Hab.* Khásis; Nágas (*Doherty*). *Exp.* 20 millim. Type in coll. Elwes.

## Genus **PERISYNTROCHA**.

Perisyntrocha, *Meyr. Trans. Ent. Soc.* 1894, p. 469.

Type, *P. alienalis*, Wlk., from the Malayan subregion.

*Range.* Sikhim; Nágas: Australia; New Britain.

Differs from *Bradina* in the 2nd joint of palpi being slightly fringed with scales in front; both wings with veins 4, 5 on long stalks.

4704. **Perisyntrocha ossealis**, n. sp.

♂. Pale glossy ochreous; abdomen ringed with fuscous. Fore wing with the costa black; black streaks on costal and subcostal nervures; a discocellular band expanding at lower angle of cell; a sinuous postmedial black band bent inwards above inner margin and continued as a fascia almost to base; a marginal black line expanding into a patch at middle. Hind wing with curved post-

Fig. 128.
*Perisyntrocha ossealis*, ♂. 1/1.

medial black band ending on inner margin near anal angle; a marginal black line widening to costa.

*Hab.* Sikhim (*Dudgeon*); Nágas (*Doherty*). *Exp.* 20–22 millim. Type in coll. Elwes.

## Genus STEGOTHYRIS.

Stegothyris, *Led. Wien. ent. Mon.* 1863, p. 427.

Type, *S. fascicularis*, Zell., from S. Africa.

*Range.* S. Africa; Himalayas; Burma; Malayan subregion to Sambawa.

Differs from *Bradina* in veins 3, 4 of fore wing being stalked; male with a fan of scales in upper angle of cell below.

4705. **Stegothyris diagonalis**, *Guen. Delt. & Pyr.* p. 201; *C. & S.* no. 4301.

Stegothyris transversalis, *Led. Wien. ent. Mon.* 1863, pp. 427, 482, pl. 16, fig. 5.

Botys plagalis, *Moore, P. Z. S.* 1867, p. 96; *C. & S.* no. 4074.

White; palpi above and frons blackish; shoulders golden brown; abdomen slightly yellowish above towards extremity; some diffused golden brown on costal area of fore wing and outer area of both wings, narrowing to anal angle of hind wing; an oblique line from costa of fore wing beyond middle to anal angle of hind wing.

Fig. 129.
*Stegothyris diagonalis*, ♂. 1/1.

*Hab.* N.W. & E. Himalayas; Burma; Sumatra; Java; Sambawa. *Exp.* 24 millim.

## Genus HYMENOPTYCHIS.

Hymenoptychis, *Zell. K. Vet.-Ak. Handl.* 1852, p. 64 (1854).
Syrbatis, *Wlk. Cat.* xxvii, p. 119 (1863).

Type, *H. sordida*, Zell.

*Range.* S. Africa; Bengal; Ceylon; Burma; Malayan subregion and Pacific groups.

Palpi upturned, reaching vertex of head, the 3rd joint short, with a small triangular tuft in front; maxillary palpi minute and filiform; frons rounded; antennæ of male thickened and flattened; legs long and slender; abdomen very long, especially in male, which has the terminal segment long and pointed. Fore wing long and narrow; the apex rounded; cell less than half the length of wing; vein 3 from close to angle of cell; 4, 5 approximated for some distance; 6 from below upper angle; 7 straight; in male the cell very short, 6 bent down and approximated to 4, 5; 7 bent down at middle; a fringe of hair on subcostals below from angle of cell

halfway to apex. Hind wing with the cell about one-fourth length of wing; vein 3 from angle; 4, 5 approximated for some distance; 6, 7 stalked.

4706. **Hymenoptychis sordida**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 65; *Led. Wien. ent. Mon.* 1863, p. 426, pl. 16, fig. 2.
Syrbatis tipuliformis, *Wlk. Cat.* xxvii, p. 120.
Botys pterophoralis, *Wlk. Cat.* xxxiv, p. 1413.

Dull red-brown. Fore wing with slight semihyaline streaks in the interspaces and traces of dark dentate ante- and postmedial lines.

Fig. 130.—*Hymenoptychis sordida*, ♂. 1/1.

*Hab.* S. Africa; Calcutta; Ceylon; Rangoon; Malacca; Borneo; Marshall and Ellice Islands. *Exp.*, ♂ 28, ♀ 30 millim.

## Genus TATOBOTYS.

Tatobotys, *Butl. P. Z. S.* 1880, p. 686.
Decticogaster, *Snell. Tijd. v. Ent.* xxiii, p. 230 (1880).
Cometura, *Meyr. Trans. Ent. Soc.* 1886, p. 226.

Type, *T. janapalis*, Wlk.
*Range*. Oriental region and eastwards to the Solomons.

Palpi upturned and not reaching vertex of head, the 2nd joint moderately fringed in front, the 3rd short and blunt; maxillary palpi extremely minute; frons rounded; antennæ rather longer than fore wing and somewhat thickened; legs long and slender, the outer spurs about half the length of inner; abdomen extremely long in male, with very long anal tuft. Fore wing with the costa arched towards apex; the outer margin very oblique; veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9, 10. Hind wing with the cell nearly half the length of wing; veins 3, 4, 5 from angle; 6, 7 from upper angle.

4707. **Tatobotys janapalis**, *Wlk. Cat.* xviii, p. 676; *C. & S.* no. 4096.
Botys lirisalis, *Wlk. Cat.* xix, p. 1003.
Botys cunealis, *Wlk. Cat.* xxxiv, p. 1420.
Tatobotys argillacea, *Butl. P. Z. S.* 1880, p. 686.
Hedylepta gemella, *Moore, Lep. Atk.* p. 208; *C. & S.* no. 4344.

Rufous-brown slightly suffused with fuscous. Fore wing with the basal costal area fuscous; an obscure minutely dentate antemedial black line; a spot in cell; both wings with a black line on

each side of the discocellulars; a highly dentate postmedial line slightly bent outwards between veins 5 and 2, then retracted to angle of cell; a marginal line, and line through the cilia.

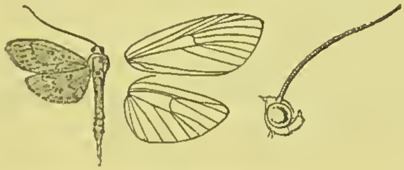

Fig. 131.—*Tatobotys janapalis*, ♂. 1/1.

*Hab.* Formosa; Ceylon; Rangoon; Solomons. *Exp.* 16–20 millim.

4708. **Tatobotys varanesalis**, *Wlk. Cat.* xviii, p. 719.
Decticogaster zonulalis, *Snell. Tijd. v. Ent.* xxiii, p. 231, and xxvii, p. 40, pl. 3, fig. 11.

♂. Fiery orange; head and thorax slightly marked with fuscous; abdomen with black dorsal bands on first two segments and silvery bands on the others, the anal segment white, striped with black. Fore wing with two oblique black subbasal bands; two spots in the cell; a Y-shaped medial band not reaching inner margin; an obliquely curved postmedial band diffused along costa and joining the broad black outer area. Hind wing with two black lines from near base of cell to near anal angle; a V-shaped medial band from costa to vein 2; a triangular patch from apical part of costa with its apex on vein 2; a marginal black line.

*Hab.* Rangoon; Borneo. *Exp.* 18 millim.

## Genus ALMONIA.

Almonia, *Wlk. Cat.* xxxiv, p. 1495 (1865).
Dodanga, *Moore, Lep. Ceyl.* iii, p. 331 (1886).

Type, *A. truncatalis*, Wlk.

*Range.* S. India; Ceylon; Java; Celebes.

Palpi upturned, the 2nd joint broadly and roundly scaled in front, the 3rd minute and naked; maxillary palpi filiform; frons rounded; antennæ annulated with rings at the joints; abdomen of male with the terminal segments flattened, the last segment long and the anal tuft large; tibiæ with the outer spurs considerably less than half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 6 from well below upper angle; 7 well separated from 8, 9, 10. Hind wing with the outer margin excised at middle, and the anal area produced into a large lobe; veins 3, 4 from angle of cell and approximated for a short distance; 5 from above the angle; 6, 7 stalked; male with a tuft of long hair from base of inner margin.

SECT. I. (*Almonia*). Hind tibiæ of male with immensely developed tufts of hair from medial spurs to extremity on both inner and outer sides.

4709. **Almonia truncatalis**, *Wlk. Cat.* xxxiv, p. 1440.
Almonia onustalis, *Wlk. Cat.* xxxiv, p. 1495.

♂. Black-brown; palpi below and throat white; the tarsi whitish; abdomen with the flattened segments fringed with leaden scales; the anal tuft ochreous. Fore wing with obscure black spot in cell and discocellular lunule; the discal area darker and more

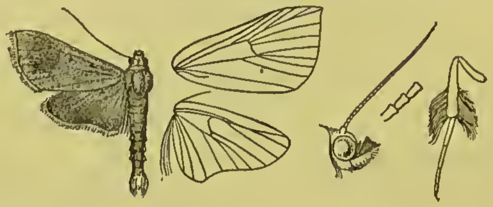

Fig. 132.—*Almonia truncatalis*, ♂. ½.

thickly scaled; traces of a curved postmedial line on both wings, more prominent on underside. Hind wing with the tuft on inner margin paler.

*Hab.* Ceylon; Java; Sula Islands, N. Celebes. *Exp.* 32 millim.

SECT. II. (*Dodanga*). Hind tibiæ of male without tufts of hair.

A. *Hind wing of male with a large patch of rough brown scales on anal lobe below.*

4710. **Almonia lobipennis**, *Moore, Lep. Ceyl.* iii, p. 332, pl. 182, fig. 3; *C. & S.* no. 4126.

♂. Differs from *truncatalis* in the tuft on inner margin of hind wing being black.

*Hab.* Ceylon. *Exp.* 24 millim.

B. *Hind wing of male with no sexual patch below.*

4711. **Almonia cristata**, *Hmpsn. Ill. Het.* viii, p. 136, pl. 156, fig. 7.

♂. Differs from *truncatalis* in having no leaden scales on the abdomen; the anal tuft black.

*Hab.* Ganjam; Nilgiris. *Exp.* 28 millim.

## Genus BRADINA.

Bradina, *Led. Wien. ent. Mon.* 1863, p. 424.
Erilita, *Led. Wien. ent. Mon.* 1863, p. 426.
Pleonectusa, *Led. Wien. ent. Mon.* 1863, p. 426.
Physematia, *Led. Wien. ent. Mon.* 1863, p. 447.

Type, *B. impressalis*, Led., from Amboina.

*Range.* Ethiopian region; Japan; Oriental and Australian regions.

Palpi upturned, the 2nd joint broadly rounded, with scales in front; the 3rd short and blunt; maxillary palpi as long as labial; frons rounded; antennæ annulated; legs long and slender, the outer spurs half the length of inner; abdomen of male long and slender; wings narrow. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9, 10. Hind wing with the cell short; veins 3, 4, 5 from the angle; 6, 7 from upper angle.

SECT. I. (*Erilita*). Fore wing of male with no fovea in end of cell.

4712. **Bradina admixtalis**, *Wlk. Cat.* xviii, p. 665; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 13; *C. & S.* no. 4110.
Botys panæusalis, *Wlk. Cat.* xix, p. 998.
Pleonectusa tabidalis, *Led. Wien. ent. Mon.* 1863, pp. 426, 481.
Pleonectusa sodalis, *Led. Wien. ent. Mon.* 1863, pp. 426, 481.
Pleonectusa pallidalis, *Warr. A. M. N. H.* (6) xvii, p. 147.

Pale ochreous brown; palpi white below. Fore wing with dark speck in cell and discocellular lunule; hind wing with discocellular speck; both wings with curved postmedial brown line; a marginal line and line at base of cilia, which on fore wing are fuscous with grey tips, on hind wing whitish.

*Hab.* Natal; Japan; throughout India, Ceylon, and Burma; Perak. *Exp.* 24 millim.

4713. **Bradina adhæsalis**, *Wlk. Cat.* xviii, p. 664; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 14; *C. & S.* no. 4109 (part).

♀. Differs from *admixtalis* in being black-brown; the cilia blackish, with a fine pale line at base.

*Hab.* Nilgiris; Ceylon. *Exp.* 24 millim.

4714. **Bradina subpurpurescens**, *Warr. A. M. N. H.* (6) xvii, p. 147.

♂. Fuscous, with a cupreous yellow gloss; abdomen whitish. Fore wing with faint discocellular speck and straight postmedial line from costa to vein 2. Underside with the inner area of fore wing and the basal half of costa of hind wing whitish.

*Hab.* Bhután; Khásis. *Exp.* 30 millim.

4715. **Bradina melanoperas**, n. sp.

♂. Head, thorax, and abdomen fuscous brown; the anal tuft pure white; wings greyish brown, irrorated with brown scales. Fore wing with black discocellular lunule and indistinct curved minutely waved postmedial line, with the area beyond it rather darker. Hind wing with traces of curved postmedial line. Underside paler; the apical area of fore wing black.

*Hab.* E. Pegu (*Doherty*). *Exp.* 34 millim. Type in coll. Elwes.

4716. **Bradina bicoloralis**, n. sp.

♂. Differs from *admixtalis* in being browner; fore wing with the postmedial line somewhat sinuous; hind wing with it rather more sinuous. Underside of fore wing smoky black, the costa and apical area brown; hind wing white, the outer area suffused with fuscous except at apex and anal angle.

*Hab.* E. Pegu (*Doherty*). *Exp.* 30 millim. Type in coll. Elwes.

4717. **Bradina translinealis**, n. sp.

Fig. 133.—*Bradina translinealis*, ♂. 1/1.

Differs from *admixtalis* in being fuscous brown. Fore wing with the postmedial line almost straight and reaching the inner margin near outer angle; hind wing with the postmedial line slightly sinuous and not curved; the cilia dark with slight grey tips.

*Hab.* N.W. Himalayas. *Exp.* 30 millim. Type in B. M.

4718. **Bradina sagittalis**, *Swinh. A. M. N. H.* (6) xvi, p. 301.

Fuscous brown; antennæ ringed with fuscous; wings irrorated with black. Fore wing with diffused outwardly oblique black antemedial line; a black speck in cell and incomplete discocellular lunule; a postmedial diffused black line sending a very acute angle inwards on vein 5, then highly excurved and retracted at vein 2 to below angle of cell. Hind wing with diffused postmedial line retracted at vein 2 to angle of cell.

*Hab.* Accra, W. Africa; Hyderabad, Sind; Ceylon. *Exp.* 20 millim.

SECT. II. (*Physematia*). Fore wing of male with a slight fovea in upper angle of cell.

*4719. **Bradina concordalis**, *Led. Wien. ent. Mon.* 1863, p. 447, pl. i fig. 27, and pl. xvii, fig. 14; *C. & S.* no. 4292.

Head and thorax brown; abdomen yellow. Fore wing brown; yellow patch in end of cell; a large patch beyond the cell, with spot below it and small spot on costa above it; a submarginal band from costa to vein 2, angled inwards on vein 5. Hind wing brown; the basal area yellow; a yellow patch beyond cell, with a spot below it; a submarginal waved band between veins 6 and 2; underside yellow, with medial and postmedial brown bands, the former not reaching the costa or inner margin; the outer area brown.

*Hab.* Nicobars. *Exp.* 16 millim.

## Genus LUMA.

Luma, *Wlk. Cat.* xxvii, p. 121 (1863).
Pelena, *Moore, Lep. Ceyl.* iii, p. 386 (1886).
Loxocorys, *Meyr. Trans. Ent. Soc.* 1894, p. 6.

Type, *L. anticalis*, Wlk., from Borneo.

*Range.* Japan; Khásis; Ceylon; Burma; Borneo.

Palpi upturned, the 2nd joint reaching above vertex of head and slightly scaled in front, the 3rd well developed and acuminate; maxillary palpi filiform; frons oblique; vertex of head with rough hair; antennæ of male thickened and flattened; tibiæ with the outer spurs about half the length of inner. Fore wing broad; the apex rounded; veins 3, 4, 5 well separated at origin; 7 remote from 8, 9, 10. Hind wing with the cell about half the length of wing; veins 3, 4, 5 from near angle; 6, 7 from upper angle.

The typical species in male has a small tooth at middle of costa which is thickened below, the base of veins 8, 9, 10 swollen and 11 almost obsolete.

4720. **Luma flavalis**, *Hmpsn. Ill. Het.* ix, p. 171, pl. 173, fig. 14.

♀. Pale orange-yellow; palpi and extremity of abdomen tinged with fuscous. Fore wing with the basal area fulvous except towards costa, followed by a yellow band with a whitish patch on it below median nervure; a large fuscous patch on outer half of wing extending from end of cell and inner margin to near outer margin at middle, then to the subcostals, its edge below the costa sinuous. Hind wing whitish, with faint curved postmedial diffused fuscous shade.

*Hab.* Ceylon. *Exp.* 32 millim.

4721. **Luma unicolor**, *Moore, Lep. Ceyl.* iii, p. 386, pl. 184, fig. 16; *C. & S.* no. 4705.
Lygropia uniformis, *Hmpsn. Ill. Het.* ix, p. 171, pl. 173, fig. 7.

♀. Uniform fulvous yellow, without the slightest trace of markings or shade of any other colour.

*Hab.* Ceylon. *Exp.* 30 millim.

4722. **Luma sericea**, *Butl. A. M. N. H.* (5) iv, p. 451.

Fuscous brown; palpi white at base; frons grey. Fore wing with indistinct curved sinuous antemedial line, the medial part of costa ochreous; a dark discocellular lunule with ochreous spot on its outer edge; an indistinct postmedial line, excurved between veins 6 and 3, slightly outlined with ochreous, and with large ochreous spot beyond it on costa; cilia ochreous except between

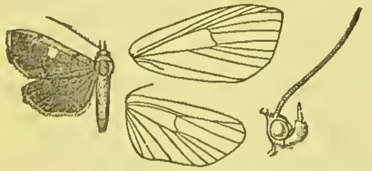

Fig. 134.—*Luma sericea*, ♂. ½.

veins 2 and 4. Hind wing with indistinct cell-speck and slightly sinuous postmedial line; underside suffused with grey.

*Hab.* Japan; Khásis; Shán States. *Exp.* 22–26 millim.

4723. **Luma obscuralis**, *Swinh. A. M. N. H.* (6) xvi, p. 300.

Fuscous brown; head brownish ochreous; palpi black at sides; fore legs ochreous marked with fuscous; anal tuft ochreous. Fore wing with obscure postmedial line arising from a blackish spot on costa and very much excurved between veins 8 and 2. Hind wing somewhat paler in parts; an obscure diffused postmedial line excurved between veins 6 and 2. Underside paler, with discocellular lunule; the postmedial line reduced to specks.

*Hab.* Khásis. *Exp.* 22 millim.

## Genus ORPHNOPHANES.

Orphnophanes, *Led. Wien. ent. Mon.* 1863, p. 428.
Syntomodora, *Meyr. Trans. Ent. Soc.* 1894, p. 467.

Type, *O. eucerasalis*, Wlk.

*Range.* Sikhim; Assam; Andamans; Borneo; Amboina.

Differs from *Luma* in the 2nd joint of palpi being shorter, hardly reaching vertex of head, and broadly rounded with scales in front; the frons rounded; antennæ ciliated.

Sect. I. Fore wing with the apex not produced; hind wing with the outer margin nearly straight.

A. (Syntomodora). *Hind wing with the inner margin normal.*

4724. **Orphnophanes thoasalis**, *Wlk. Cat.* xviii, p. 692; *C. & S.* no. 4078.

♂. Differs from *Luma sericea* in the palpi being banded black and white. Fore wing with the antemedial line straighter and more prominent; the discocellular mark quadrate, white, and with a black line on inner and outer sides; the postmedial line with whitish patch beyond it on costa, retracted on vein 2 to below angle of cell, then waved. Hind wing with discocellular speck, the postmedial line sinuous and retracted on vein 2 to below angle of cell.

*Hab.* Sikhim; Andamans; Borneo. *Exp.* 20 millim.

4725. **Orphnophanes lævalis**, *Warr. A. M. N. H.* (6) xvii, p. 206.

♂. Fuscous brown; head and extremity of abdomen with a fulvous tinge. Fore wing with indistinct antemedial black line; two discocellular black specks; an almost straight prominent black postmedial line with another ill-defined line beyond it. Hind wing with waved black medial and postmedial lines, the latter joined at vein 2 by a line from near apex, diffused towards costa, and ending at anal angle; both wings with fine marginal line and line through the cilia.

*Hab.* Khásis *Exp.* 14 millim.

B. (Orphnophanes). *Hind wing of male with the inner margin slightly lobed and fringed with hair.*

4726. **Orphnophanes eucerasalis**, *Wlk. Cat.* xix, p. 1002.
Orphnophanes productalis, *Led. Wien. ent. Mon.* 1863, p. 428, pl. 16, fig. 7.

♂. Head and thorax fuscous, the latter with some white at end of patagia and on metathorax; abdomen white. Fore wing fuscous with a cupreous tinge; the costa white from near base to near apex, the inner margin from near base to outer angle; an indistinct dark speck in end of cell; the indistinct postmedial line arising from a black spot on costa, nearly straight to vein 5, excurved to vein 2, then retracted to below angle of cell. Hind wing pure white, with postmedial black speck below costa and larger spot on vein 2, with traces of a line from it to anal angle; underside with discocellular black speck and traces of irregular postmedial series bent outwards between veins 5 and 2.

Fig. 135.
*Orphnophanes eucerasalis*, ♂. $\frac{1}{1}$.

*Hab.* Sikhim; Borneo; Amboina. *Exp.* 22 mm.

Sect. II. Fore wing with the apex produced; hind wing with the outer margin rounded.

4727. **Orphnophanes albisignalis**, n. sp.

♂. Fulvous. Fore wing with very prominent oblique silvery-white dark-edged discocellular band; traces of a postmedial line highly excurved between veins 6 and 3; the cilia black at base, pure white at tips. Hind wing pale ochreous, with traces of a postmedial line excurved between veins 6 and 3; the marginal area suffused with fulvous; cilia white. Underside with the postmedial line of hind wing dark and more prominent.

*Hab.* Sikhim (*Dudgeon*); Nágas (*Doherty*). *Exp.* 20 millim. Type in coll. Elwes.

4728. **Orphnophanes inconsequens**, *Warr. A. M. N. H.* (6) xvii, p. 204.

♂. Pale fulvous; palpi ringed with black. Fore wing with black annulus at base of costa followed by a prominent black spot; irregularly waved antemedial and postmedial dark lines; a discocellular black line on a white spot; the costal area variegated with white towards base and with two black specks on white spots beyond middle; a submarginal series of black spots placed on a white ground towards costa; cilia variegated with black. Hind wing clothed with rough hair and with traces of antemedial, postmedial, and submarginal black lines prominent below.

*Hab.* Khásis. *Exp.* 16 millim.

## Genus COPTOBASIS.

Coptobasis, *Led. Wien. ent. Mon.* 1863, p. 429.

Type, *C. sulcialis*, Wlk.
*Range.* N.E. India ; Borneo.

Palpi upturned, the 2nd joint moderately scaled in front, the 3rd short, with a small triangular tuft in front; maxillary palpi minute and filiform; frons rounded; antennæ of male with large tuft of hair from upperside of basal joint, the base of shaft excised; tibiæ with the outer spurs half the length of inner; abdomen long and slender. Fore wing long and narrow; veins 3, 4, 5 from angle of cell; 7 curved and approximated to 8, 9, 10. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4729. **Coptobasis sulcialis**, *Wlk. Cat.* xviii, p. 684.

♂. Glossy black-brown; pectus white; legs pale, the tarsi whitish; abdomen white below. Fore wing with indistinct oblique antemedial line; spots in cell and on discocellulars; the postmedial line slightly curved from costa to vein 3, then bent inwards to below end of cell. Hind wing with traces of discocellular spot and sinuous postmedial line.

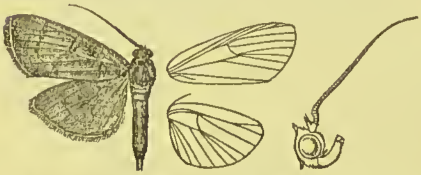

Fig. 136.—*Coptobasis sulcialis*, ♂. 1/1.

*Hab.* Khásis; Nágas; Borneo. *Exp.* 38 millim.

## Genus CŒLORHYNCIDIA, nov.

Type, *C. ovulalis*, Hmpsn.
*Range.* N.W. Himalayas.

Palpi obliquely upturned and not reaching vertex of head, the 2nd and 3rd joints conically scaled; maxillary palpi filiform; frons produced to two slight lateral angles; antennæ of male thickened and annulated with rings at the joints; tibiæ with the outer spurs half the length of inner; veins 3, 4, 5 from close to angle of cell; 7 well separated from 8, 9, 10. Hind wing with the cell short; vein 3 absent; 4, 5 well separated; 6, 7 from upper angle.

4730. **Cœlorhyncidia ovulalis**, n. sp.

Fig. 137.—*Cœlorhyncidia ovulalis*, ♂. 1/1.

♂. Fuscous black; frons, vertex of head, antennæ, pectus, and legs ochreous; abdomen ventrally ochreous ringed with black; the anal tuft fulvous. Fore wing with curved dark antemedial line; a whitish postmedial oval patch diffused upwards to costa and extending down to vein 5, the

postmedial line excurved round it, then incurved. Hind wing with obscure curved postmedial line.

*Hab.* Simla (*Harford*); Dharmsála (*Hocking*). *Exp.* 28 millim. Type in B. M.

## Genus DIATHRAUSTODES, nov.

Type, *D. leucotrigona*, Hmpsn.

*Range.* Nilgiris.

Palpi upturned and reaching vertex of head, the 3rd joint short and naked; maxillary palpi filiform; frons rounded; antennæ annulate; tibiæ with the spurs nearly equal. Fore wing with vein 3 from before angle of cell; 7 straight and well separated from 8, 9, 10. Hind wing with the cell short; vein 3 from angle; 4, 5 on a long stalk; 6, 7 from upper angle; 7 anastomosing with 8 to two-thirds of wing.

4731. **Diathraustodes leucotrigona**, n. sp.

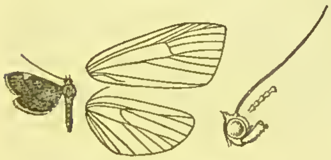

Fig. 138.
*Diathraustodes leucotrigona*, ♂. 1/1.

♂. Fuscous, suffused with grey; palpi white at extremity. Fore wing with a triangular white patch on costa beyond middle reaching to vein 6; both wings with the cilia white.

*Hab.* Nilgiris (*Hampson*). *Exp.* 16 millim. Type in B. M.

## Genus DIATHRAUSTA.

Diathrausta, *Led. Wien. ent. Mon.* 1863, p. 438.

Type, *D. profundalis*, Led.

*Range.* W. Indies; Brazil; India; Ceylon; Amboina; Sumbawa.

Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated with scales; frons rounded; antennæ annulated and ciliated; tibiæ with the outer spurs two-thirds length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, 10. Hind wing with the cell about half the length of wing; vein 4 absent; 6, 7 from upper angle.

4732. **Diathrausta profundalis**, *Led. Wien. ent. Mon.* 1863, p. 438, pl. 17, fig. 7.

Fig. 139.
*Diathrausta profundalis*, ♂. 1/1.

Diathrausta conicalis, *Warr. A. M. N. H.* (6) xvii, p. 143.
Diathrausta obliterata, *Warr. A. M. N. H.* (6) xvii, p. 143.

Fuscous black; palpi white below; abdomen ringed with white. Fore wing with traces of curved antemedial line; a postmedial triangular white patch extending down to vein 5, and with traces of a sinuous line from

it to inner margin. Hind wing with sinuous white postmedial line; cilia of both wings chequered black and white.

The forms *conicalis* and *obliterata* have the white marks on the cilia much reduced; the former has the triangular white patch small, the latter reduced to a spot.

*Hab.* Sikhim; Nilgiris; Sumbawa; Amboina. *Exp.* 18 millim.

4733. **Diathrausta picata**, *Butl. Ill. Het.* vii, p. 94, pl. 134, fig. 17.

Differs from *profundalis* in the fore wing having a white spot in end of cell; the postmedial white patch on costa with its edges sinuous and outlined with white. Hind wing with white spot in cell; a dark discocellular lunule; a large subquadrate white patch beyond the cell, with the postmedial white line bent outwards beyond it.

*Hab.* Dharmsála. *Exp.* 18 millim.

## Genus STENIA.

Stenia, *Guen. Dup. Cat. Meth.* p. 201 (1844).
Arnia, *Guen. Delt. & Pyr.* p. 240 (1854).
Amaurophanes, *Led. Wien. ent. Mon.* 1863, p. 422.
Symmoracma, *Meyr. Trans. Ent. Soc.* 1894, p. 469.

Type, *S. punctalis*, Schiff.

*Range.* Neotropical, Palæarctic, Ethiopian, and Oriental regions.

Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated at extremity; frons rounded; antennæ as long as fore wing and annulated; legs long and slender, the outer spurs half the length of inner; abdomen long. Fore wing long and narrow; vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9, 10. Hind wing narrow; the cell about half the length of wing; vein 3 from before angle; 4, 5 approximated for a short distance; 6, 7 from upper angle.

4734. **Stenia punctalis**, *Schiff. Wien. Verz.* p. 123.
Asopia ætnæalis, *Dup. Lep. Fr.* viii, p. 199, pl. 223, fig. 4.
Margaritia longipedalis, *Curt. Brit. Ent.* vi, pl. 312.

Fuscous brown, usually with a rufous tinge; palpi white below; abdomen ringed with white. Fore wing with obliquely sinuous antemedial dark line; a white discocellular lunule; a postmedial line bent outwards between veins 5 and 2, then retracted to below end of cell. Hind wing with obscure sinuous postmedial line.

*Hab.* Europe; Armenia; Dharmsála. *Exp.* 22 millim.

4735. **Stenia spodinopa**, *Meyr. Trans. Ent. Soc.* 1894, p. 469.
Stenia profanalis, *Hmpsn. Ill. Het.* ix, pl. 174, fig. 22 (*nec Wlk.*).

Black-brown. Fore wing with obscure antemedial line; a pale speck on vein 2 below middle of cell; a pale discocellular lunule; a minutely dentate pale-edged postmedial line bent outwards

between veins 5 and 2. Hind wing with traces of postmedial line excurved between veins 5 and 2. Both wings with a series of pale and dark specks on the margin.

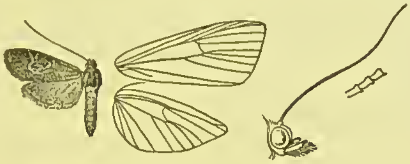

Fig. 140.—*Stenia spodinopa*, ♂. ½.

*Hab.* Ceylon; Baram, Borneo; Sumbawa. *Exp.* 20 millim.

4736. **Stenia pædiusalis**, *Wlk. Cat.* xviii, p. 788.

Head, thorax, and abdomen pale brownish fuscous; palpi white below. Fore wing fulvous yellow; the costal area brownish fuscous, with the costa pure white; an elongate grey spot in base of cell, a round spot at middle, and larger round spot on discocellulars; an oblique minutely waved postmedial line bent outwards between veins 5 and 2; a marginal grey band with waved inner edge; cilia with a white line at base. Hind wing yellowish white, with slight marginal dark line.

*Hab.* Central Africa; Aden; Bhután. *Exp.* 22 millim.

## Genus HYALOPLAGA.

Hyaloplaga, *Warr. A. M. N. H.* (6) ix, p. 432 (1892).

Type, *H. pulchralis*, Moore.

*Range.* Sikhim.

Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi somewhat dilated at extremity; frons rounded; antennæ of male ciliated; tibiæ with the outer spurs about half the length of inner. Fore wing of male with a large fovea below base of median nervure; veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9, 10. Hind wing of male with the costa much lobed near base; veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4737. **Hyaloplaga pulchralis**, *Moore, P. Z. S.* 1867, p. 90; *C. & S.* no. 4430.

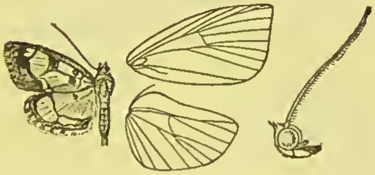

Fig. 141.—*Hyaloplaga pulchralis*, ♂. ½.

Head, thorax, and abdomen brown and yellow; palpi white below. Fore wing fuscous brown; basal and two subbasal yellow spots below median nervure and a speck in cell, a quadrate yellow spot in end of cell, and a large quadrate patch below end of cell with a small spot beyond it; an oval patch beyond the cell from subcostals to vein 3,

with two spots beyond it below costa; two submarginal specks below apex and some marks near outer angle. Hind wing yellow, with discocellular black spot; a postmedial brown line angled outwards at vein 3 and connected with the marginal markings at vein 3 and towards anal angle; an apical and marginal brown band with a series of yellow spots on it; cilia of both wings chequered brown and white.

*Hab.* Sikhim. *Exp.* 24 millim.

## Genus PILETOCERA.

Piletocera, *Led. Wien. ent. Mon.* 1863, p. 431.
Danaga, *Moore, Lep. Ceyl.* iii, p. 272 (1885).

Type, *P. violalis*, Led., from Amboina.

*Range.* India; Ceylon; Burma; Malayan subregion to Mysol.

Palpi upturned, the 2nd joint moderately fringed with scales in front and reaching vertex of head, the 3rd obtuse; maxillary palpi extremely minute; frons rounded; antennæ of male with long cilia, the shaft bent and with a bifid tuft of hair at middle, then serrated; tibiæ with the outer spurs two-thirds length of inner. Fore wing with veins 3, 4, 5 from angle of cell, 7 well separated from 8, 9, 10. Hind wing narrow; the outer margin somewhat excised towards anal angle; the inner margin short; the cell short; veins 3, 4, 5 from the angle; 6, 7 from upper angle.

Sect. I. Fore tarsi of male fringed with curled hair.

4738. **Piletocera ægimiusalis**, *Wlk. Cat.* xix, p. 929.
Desmia collaris, *Wlk. Cat.* xxxiv, p. 1293.
Ædiodes mysolalis, *Wlk. Cat.* xxxiv, p. 1299.
Danaga pullatalis, *Swinh. P. Z. S.* 1889, p. 420.

Fuscous black; the base of palpi, frons, collar, and base of abdomen whitish. Fore wing with whitish spot at middle of cell and quadrate spot in end of it; a small triangular spot on costa before apex; the cilia white at outer angle. Hind wing with postmedial white spot on inner margin; the cilia white below middle.

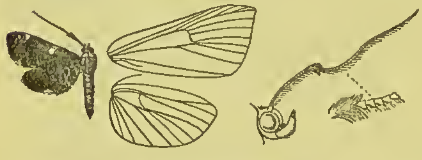

Fig. 142.—*Piletocera ægimiusalis*, ♂. 1/1.

*Hab.* Sikhim; Khásis; Margharita, Assam; Andamans; Borneo; Mysol. *Exp.* 22 millim.

Sect. II. Fore tarsi naked.

4739. **Piletocera octosemalis**, n. sp.

♂. Head, thorax, and basal half of abdomen fuscous variegated with ochreous, the terminal half of abdomen yellowish white.

Fore wing fuscous; some ochreous on basal area defining obscure subbasal and antemedial lines; the medial costal area pale ochreous; a dark annulus in cell, another on discocellulars with one on costa above it, the two forming a figure of eight; two small annuli on costa before apex; traces of a postmedial line defined by ochreous and bent inwards at vein 3 to below end of cell, then more strongly defined by ochreous; the apex tinged with ochreous; an ochreous marginal patch towards anal angle. Hind wing with the basal, costal, and apical areas fuscous, the rest of wing yellowish white.

*Hab.* Bernardmyo, Burma (*Doherty*). *Exp.* 24 millim. Type in coll. Elwes.

4740. **Piletocera concisalis**, *Wlk. Cat.* xvii, p. 345; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 3; *C. & S.* no. 4260.

Fuscous black; palpi white below; abdomen variegated with pale scales. Fore wing with sinuous white-edged antemedial line; a quadrate white spot in end of cell conjoined to an ochreous-white costal streak; a pale speck at lower angle of cell; the postmedial line sinuous, with a pale outer edge, arising from a pale spot on costa, nearly straight to vein 2, then retracted to below angle of cell; the cilia pale at outer angle. Hind wing with oblique medial white line angled beyond lower end of cell and terminating at anal angle; the cilia pale below middle.

*Hab.* Nilgiris; Ceylon. *Exp.* 20 millim.

4741. **Piletocera costipunctata**, *Warr. A. M. N. H.* (6) xviii, p. 217.
Desmia illectalis, *Wlk. Cat.* xix, p. 931 (præocc.).

Black-brown; palpi white below; abdomen slightly marked with ochreous. Fore wing with black and ochreous strigæ on costa; an indistinct waved antemedial dark line slightly defined by ochreous; a whitish quadrate spot in end of cell and discocellular black lunule with line from it to inner margin; a curved postmedial line ending at outer angle and slightly defined by ochreous. Hind wing with ante- and postmedial dark lines, the latter ending at anal angle; both wings with pale patches on cilia at anal angles and a pale line through their bases.

*Hab.* Tenasserim; Borneo. *Exp.* 16 millim.

4742. **Piletocera albilunata**, *Warr. A. M. N. H.* (6) xvii, p. 143.

♀. Black-brown; palpi white below; abdomen slightly ringed with white. Fore wing with traces of a basal yellow patch and antemedial line arising from an orange spot on the costa; a prominent orange medial spot on costa conjoined to the pure white discocellular lunule; a slightly sinuous orange postmedial line; a white patch on cilia at outer angle. Hind wing with pure white discocellular lunule; indistinct sinuous yellow medial line; cilia white at apex and anal angle.

*Hab.* Khásis. *Exp.* 16 millim.

4743. **Piletocera flexiguttalis**, *Warr. A. M. N. H.* (6) xvii, p. 144.

♂. Dark brown; palpi yellowish at base; abdomen yellowish at extremity. Fore wing with a fulvous spot in cell; a wedge-shaped yellow discocellular band with a spot on the costa beyond it; cilia yellow at outer angle and towards anal angle of hind wing.

♀ with the discocellular band of fore wing developed into a triangular patch reaching the costa.

*Hab.* Khásis. *Exp.* 24 millim.

4744. **Piletocera contingens**, *Moore, Lep. Ceyl.* iii, p. 273, pl. 179, fig. 8; *C. & S.* no. 4356.

Bright yellow; palpi whitish below; fore legs and thorax marked with black; antennal tuft black; abdomen ringed with black. Fore wing with two spots on costa and two on inner margin on basal area; a medial figure-of-8 shaped mark, the lower part often filled in with black, connected by a line with inner margin and by a streak on median nervure with the large discocellular annulus. Hind wing with antemedial nearly straight line; both wings with postmedial line excurved between veins 5 and 2; a triangular black patch on outer margin below apex and others at outer and anal angles.

*Hab.* Sikhim; Margharita, Assam; Ceylon; Shán States; Borneo. *Exp.* 16 millim.

4745. **Piletocera elongalis**, *Warr. A. M. N. H.* (6) xvii, p. 145.

♂. Head, thorax, and abdomen ochreous marked with fuscous. Fore wing long and narrow; ochreous, with fuscous suffusion on inner area from base to near outer angle and extending over the disk almost to apex; a slightly sinuous antemedial line; a black annulus in cell and discocellular lunule filled in with ochreous, a black spot above it on costa and two other specks nearer apex; a sinuous submarginal line. Hind wing fuscous, with traces of antemedial black line terminating in an ochreous spot on inner margin; the margin ochreous, expanding into a patch below middle.

*Hab.* Khásis. *Exp.* 18 millim.

## Genus **CAMPTOMASTYX**, nov.

Type, *C. hisbonalis*, Wlk.

*Range.* China; N.W. Himalayas; Sikhim; Assam; Borneo.

Palpi porrect, long and straight, the 2nd joint about twice the length of head and fringed with hair below at extremity, the 3rd long; maxillary palpi extremely minute; frons rounded; antennæ of male ciliated, thickened, bent downwards, and clothed above with rough hairs; tibiæ with the outer spurs about two-thirds length of inner; abdomen of male dilated at extremity, the

claspers covered with a large tuft of hair. Fore wing with veins 3, 4, 5 well separated at origin; 7 straight and well separated from 8, 9, 10. Hind wing narrow; the cell short; veins 3, 4, 5 radiating from the angle; 6, 7 stalked.

SECT. I. Antennæ of male with the thickening at about one-third from base.

4746. **Camptomastyx hisbonalis**, *Wlk. Cat.* xviii, p. 707.
Botys pacalis, *Leech, Entom.* 1889, p. 69, pl. 4, fig. 15.
Diplotyla longipalpis, *Butl. Ill. Het.* vii, p. 95, pl. 135, fig. 14.

Fig. 143.
*Camptomastyx hisbonalis*, ♂. ½.

♂. Dark rufous suffused with fuscous; male with the anal tuft ochreous. Fore wing with obscure nearly straight antemedial line; the discal area more rufous; a minutely dentate postmedial line slightly bent outwards between veins 5 and 2, along which it is retracted to below angle of cell. Hind wing darker.

*Hab.* China; Simla; Dharmsála; Khásis; Nágas; Borneo. *Exp.* 22 millim.

SECT. II. Antennæ of male with the thickening and bend at two-thirds from base and short.

4747. **Camptomastyx exuvialis**, *Snell. Trans. Ent. Soc.* 1890, p. 627.

♂. Dark brown. Fore wing with traces of medial yellowish spot from costa to median nervure, and of a postmedial spot from costa to vein 6.

*Hab.* Sikhim; Khásis. *Exp.* 26 millim.

## Genus HYDRORYBINA, nov.

Type, *H. polusalis*, Wlk.

*Range.* Japan; Sikhim; Assam; Calcutta; Ceylon; Borneo.

Palpi porrect, extending about three times the length of head and downcurved at extremity; maxillary palpi about half the length of labial and acute; frons flat and oblique; antennæ of female ciliated; tibiæ with the outer spurs about two-thirds length of inner. Fore wing long and narrow; vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9, 10. Hind wing with the cell short; vein 3 from angle; 4, 5 approximated for a short distance; 6, 7 from upper angle.

4748. **Hydrorybina polusalis**, *Wlk. Cat.* xviii, p. 703.

♀. Fiery rufous. Fore wing with the costa dark; a dark

antemedial line, angled on median nervure; a discocellular lunule; the postmedial line excurved from costa to vein 2. Hind wing with the costal and inner areas pale; a curved dark postmedial line, obsolete on inner area. Both wings with marginal dark line and the cilia fuscous except towards anal angle of hind wing.

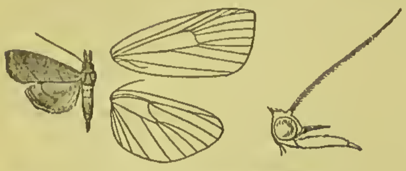

Fig. 144.—*Hydrorybina polusalis*, ♂. 1/1.

*Hab.* Sikhim; Borneo. *Exp.* 20 millim.

4749. **Hydrorybina bicolor**, *Moore, Lep. Atk.* p. 207; *C. & S.* no. 4350.
Pionea rubralis, *Warr. A. M. N. H.* (6) xvii, p. 97.

♀. Head, thorax, and fore wing crimson with a purple tinge; cilia purple, ochreous at tips; abdomen and hind wing pale fuscous brown.

♂ browner, fore wing irrorated with black; a black speck at lower angle of cell; a postmedial line highly excurved below costa, then oblique.

*Hab.* Khásis; Calcutta; Ceylon. *Exp.*, ♂ 14, ♀ 16–22 millim.

## Genus MABRA.

Mabra, *Moore, Lep. Ceyl.* iii, p. 280 (1885).

Type, *M. eryxalis*, Wlk.

*Range.* India, Ceylon, and Burma.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons rounded; tibiæ with the spurs long and nearly equal. Fore wing with veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, 10. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, 7 anastomosing strongly with 8.

Sect. I. Antennæ of male with long cilia.

4750. **Mabra eryxalis**, *Wlk. Cat.* xvii, p. 371; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 4; *C. & S.* no. 4254.

Bright orange. Fore wing with indistinct sinuous antemedial orange line; the whole discal area suffused with fuscous, extending down to inner margin; a black discocellular lunule; a sinuous dark postmedial line outwardly oblique to vein 3, then recurved to the angle of cell and excurved again; an indistinct waved orange submarginal line. Hind wing suffused with fuscous; the marginal area orange; a waved orange submarginal line.

Fig. 145.—*Mabra eryxalis*, ♂. 1/1.

*Hab.* Punjab; Ceylon; Nágas; Rangoon. *Exp.* 16 millim.

SECT. II. Antennæ of male with the shaft annulate and longer.

4751. **Mabra nigriscripta,** *Swinh. A. M. N. H.* (6) xvi, p. 302.

Bright orange; palpi fuscous. Fore wing with obliquely curved rufous antemedial line; a black annulus on middle of costa; a rufous discocellular line surrounded by a large annulus conjoined to another annulus below lower angle of cell; a postmedial rufous line black at costa, nearly straight to vein 2, then slightly retracted. Hind wing with slightly irregular subbasal ante- and postmedial lines, the last slightly retracted at vein 2; both wings with the marginal area darker; a black marginal line and the cilia white.

*Hab.* Khásis. *Exp.* 16 millim.

## Subfamily SCOPARIINÆ.

Proboscis present; maxillary palpi well developed and dilated with scales at extremity. Fore wing with more or less developed tufts of raised scales in cell; vein 7 from angle; 10 free. Hind wing with the median nervure non-pectinate *; vein 7 anastomosing with 8.

The larvæ feed on mosses and lichens, and the imagos rest on rocks and trees except in a few ancestral forms in New Zealand, which are grass-feeders.

*Key to the Genera.*

A. Palpi upturned ...................... 1. MICRAGLOSSA, p. 241.
B. Palpi porrect, triangularly scaled, the 3rd joint hidden by hair.
  *a.* Hind wing with vein 5 from lower angle of cell or stalked with 4............ 2. SCOPARIA, p. 242.
  *b.* Hind wing with vein 5 from above angle of cell ........................ 3. DASYSCOPA, p. 245.

### Genus MICRAGLOSSA.

Micraglossa, *Warr. A. M. N. H.* (6) viii, p. 65 (1891).

Type, *M. scoparialis*, Warr.

*Range.* Sikhim; Khásis.

Palpi upturned; the 2nd joint reaching vertex of head and slightly fringed with hair in front, the 3rd well developed and acuminate; maxillary palpi long and slightly dilated with scales at extremity; frons rounded; antennæ somewhat annulate; tibiæ nearly naked, with the spurs almost equal. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

* Except in one or two Australasian genera.

4752. **Micraglossa scoparialis**, *Warr. A. N. M. H.* (6) viii, p. 66.

♂. Grey, irrorated with black, with an olive-yellow tinge. Fore wing with diffused black basal patch; a diffused black antemedial band constricted from vein 1 to inner margin; a large somewhat X-shaped discocellular black spot, with fuscous patch between it and costa; fuscous patches on costa before apex and on inner margin before outer angle. Hind wing pale grey.

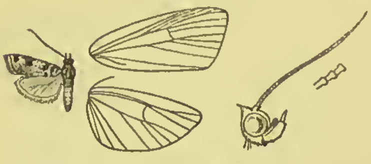

Fig. 146.
*Micraglossa scoparialis*, ♂. 1/1.

*Hab.* Sikhim; Khásis. *Exp.* 16 millim.

## Genus SCOPARIA.

Scoparia, *Haw. Lep. Brit.* p. 498 (1811).

Type, *S. cembræ*, Haw., from Europe.
*Range.* Universally distributed.
Palpi porrect, about twice the length of head, the 2nd joint with long projecting hair below, the 3rd naked; maxillary palpi largely dilated with scales; frons rounded; antennæ minutely ciliated and somewhat annulated; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with more or less developed tufts of raised scales at middle and end of cell; vein 3 from before angle of cell; 4, 5 from angle; 7 straight, and well separated from 8, 9, to which 10 is approximated towards origin. Hind wing with vein 3 from before angle of cell; 6, 7 shortly stalked.

Sect. I. Hind wing with veins 4, 5 from angle of cell.

4753. **Scoparia pulveralis**, *Snell. Trans. Ent. Soc.* 1890, p. 570.

Head and thorax black-brown, irrorated with bluish-white scales; abdomen fuscous. Fore wing black-brown, irrorated with bluish-white scales, which form an indistinct streak below base of median nervure and broad medial band; a dark quadrate patch in end of cell with blue-grey band beyond it from costa to vein 5, beyond which again are very obscure irregular blue-grey postmedial and submarginal lines; cilia whitish, with series of specks and the tips fuscous. Hind wing nearly pure white.
*Hab.* Sikhim. *Exp.* 22 millim.

4754. **Scoparia medinella**, *Snell. Trans. Ent. Soc.* 1890, p. 571.

Differs from *pulveralis* in the fore wing having an oblique antemedial white line; no medial line; the mark in cell figure-of-8-shaped, the band curving round it and reaching inner margin; the submarginal line developed into blotches below apex

and middle. Hind wing with the apical area diffused with fuscous.

*Hab.* Sikhim. *Exp.* 20 millim.

SECT. II. Hind wing with veins 4, 5 shortly stalked.

4755. **Scoparia olivaris**, *Hmpsn. Ill. Het.* viii, p. 131, pl. 154, fig. 11.

♀. Head golden olive and black; thorax black and grey. Fore wing grey, thickly irrorated with black and more slightly with golden olive; the veins broadly streaked with golden olive, especially beyond the cell; a pale antemedial line prominently angled on median nervure and slightly on vein 1; diffused black patches in and below middle of cell and in end of cell; a postmedial pale line, angled inwards on vein 6, highly excurved to vein 2, retracted to below end of cell, and angled outwards again on vein 1; a dentate white submarginal line. Hind wing pale, slightly suffused with fuscous and yellow towards margin; cilia of both wings yellowish, with a fuscous line through them.

*Hab.* Nilgiri plateau. *Exp.* 20 millim.

4756. **Scoparia delicatalis**, *Wlk. Cat.* xxxiv, p. 1500; *C. & S.* no. 4533.

Head, thorax, and fore wing grey, thickly irrorated with black and fuscous and more slightly with brown. Fore wing with a black streak below base of median nervure; an ill-defined pale curved antemedial line with diffused black ou its outer edge; a black speck at middle of cell, and black spots on rufous patches below middle and on discocellulars; a pale dentate postmedial line excurved between veins 6 and 3, and with diffused fuscous brown beyond it; ill-defined grey submarginal marks and a series of dark specks on margin and cilia. Hind wing pale; the apex and margin very slightly tinged with fuscous.

*Hab.* Sikhim; Nágas; Nilgiris. *Exp.* 18 millim.

4757. **Scoparia rufostigma**, *Hmpsn. Ill. Het.* viii, p. 131, pl. 154, fig. 4.

Differs from *delicatalis* in the antemedial line of fore wing being prominently white, angled outwards in cell and inwards below it; the medial area black, with diffused grey in, below, and beyond end of cell; the black discocellular spot and rufous patch large and prominent; the patch below cell absent; the postmedial dentate white line bent outwards to near margin between veins 3 and 1; an apical pale patch with black speck on it. Hind wing whiter.

*Hab.* Nilgiri plateau. *Exp.* 20 millim.

4758. **Scoparia mediorufalis**, n. sp.

Grey, irrorated with black and suffused with yellow. Fore wing with the base rufous, followed by a grey band; the dark oblique antemedial line excurved in and below cell; the whole medial area suffused with rufous; rufous and black spots in and

below middle of cell; a large black-edged, irregularly reniform, rufous stigma on discocellulars; the postmedial pale line bent outwards at vein 6, then obliquely curved to inner margin; the outer area grey, with dark patches on costa before apex, on outer margin at middle, and on inner margin beyond postmedial line; a marginal series of dark specks. Hind wing pale fuscous.

*Hab.* Dharmsála (*Hocking*); Sikhim (*Pilcher*). *Exp.* 18 millim. Type in B. M.

4759. **Scoparia murificalis**, *Wlk. Cat.* xix, p. 826; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 10; *C. & S.* no. 4535.

Scoparia congestalis, *Wlk. Cat.* xix, p. 826; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 2; *C. & S.* no. 4532.

Scoparia truncicolella, *Butl. Ill. Het.* vii, p. 20 (*nec Stainton*).

Grey, irrorated with black and suffused with reddish brown. Fore wing with oblique, slightly sinuous pale antemedial line with black on its outer edge; obscure black spots in and below middle of cell, and a somewhat X-shaped black discocellular mark; a minutely dentate postmedial pale line defined by black on its inner side and bent outwards between veins 5 and 2; ill-defined grey patches on marginal area below apex and above outer angle conjoined to the postmedial line; a marginal series of black specks. Hind wing whitish or pale fuscous.

Fig. 147.
*Scoparia murificalis*, ♂. $\frac{3}{2}$.

In N.W. Himalayan and some Ceylon specimens there is no reddish tinge.

*Hab.* Simla; Dharmsála; Ceylon. *Exp.* 16–20 millim.

4760. **Scoparia vinotinctalis**, n. sp.

♂. Head, thorax, and fore wing violaceous grey, evenly and thickly irrorated with fuscous. Fore wing with slight black streak below base of median nervure; traces of a diffused oblique antemedial band and of a discocellular patch; a dark postmedial line bent outwards at vein 6, then oblique to inner margin, with a diffused dark band beyond it, leaving a grey patch in the bend of the line; a marginal series of black specks. Hind wing pale, with slight fuscous and ochreous tinge; both wings with fuscous line through the cilia.

*Hab.* Nilgiri plateau (*Hampson*). *Exp.* 20 millim. Type in B. M.

4761. **Scoparia canicostalis**, n. sp.

Head grey and brown; thorax brown grizzled with grey; abdomen pale. Fore wing brown, with grey fasciæ on costa and median nervure, the latter irrorated with dark scales and with a black streak below it; a black discocellular spot; the interspaces

of outer area streaked with grey and black; a marginal series of black specks. Hind wing pale, tinged with ochreous and fuscous.

*Hab.* Nilgiris (*Hampson*). *Exp.* 26 millim. Type in B. M.

## Genus DASYSCOPA.

Dasyscopa, *Meyr. Trans. Ent. Soc.* 1894, p. 464.

Type, *D. homogenes*, Meyr.

*Range.* Assam; Sumbawa.

Differs from *Scoparia* in the hind wing having vein 5 from well above 4; male with a groove on inner area hairy above and with tufts of hair arising from it below.

4762. **Dasyscopa homogenes**, *Meyr. Trans. Ent. Soc.* 1894, p. 464.
Scoparia planilinealis, *Warr. A. M. N. H.* (6) xvii, p. 207.

Head, thorax, and abdomen grey irrorated with black. Fore wing grey irrorated with black; a subbasal black spot; an indistinct antemedial pale line defined by black on outer side, and connected with prominent black spots in and below cell; a group of irregular black spots at end of cell, with a dark mark above them on costa; a pale postmedial line defined by fuscous, and slightly excurved between veins 6 and 3, and with a series of diffused spots beyond it connected with a diffused marginal series of spots. Hind wing pale fuscous.

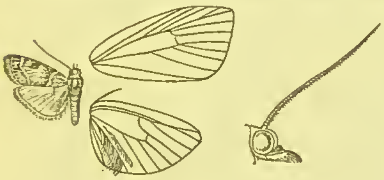

Fig. 148.
*Dasyscopa homogenes*, ♂. 1/1.

*Hab.* Khásis; Sumbawa. *Exp.* 18 millim.

## Subfamily PYRAUSTINÆ.

Proboscis well developed. Fore wing with vein 1 *a* separate from 1 *b*; 7 not stalked with 8, 9. Hind wing with the median nervure not pectinated on upperside *; 4, 5 from a point or rarely stalked; 7 usually anastomosing with 8.

### *Key to the Genera.*

A. Palpi upturned.
  *a.* Palpi with the 3rd joint long, naked, and acuminate.
    *a'.* Palpi with the 2nd joint porrect, the 3rd upturned; both wings with veins 4, 5 stalked; fore wing with vein 6 absent .. 1. ORTHORAPHIS, [p. 251.
    *b'.* Palpi with the 2nd joint upturned; fore wing with vein 6 present.
      *a*². Maxillary palpi almost as long as the labial and triangularly scaled ................ 2. SUFETULA, p. 252.

* Except in *Macaretæra* and a few genera from other regions.

$b^2$. Maxillary palpi much shorter than the labial and filiform.

$a^3$. Palpi with the 2nd joint not reachiug vertex of head.

$a^4$. Anteunæ with the shaft annulate; hind wing with the outer margin excised below apex . . . . . . . . . . . . . . . . . . . . . . 3. MASSEPHA, p. 253.

$b^4$. Antennæ with the shaft smooth; hind wing with the outer margin evenly curved.

$a^5$. Frons rounded.

$a^6$. Hind wing with veins 3, 4, 5 approximated for a short distance . . . . . . . . 9. REHIMENA, [p. 261.

$b^6$. Hind wing with veins 4, 5 approximated for a short distance . . . . . . . . 10. ZINCKENIA, [p. 262.

$c^6$. Hind wing with veins 4, 5 not approximated towards origin . . . . . . . . 11. TABIDIA, p. 263.

$b^5$. Frons flat and oblique; hind wing with veius 4, 5 not approximated towards origin . . . . . . . . . . . . . . . . . . . . . . . . 8. RAVANOA, p. 260.

$b^3$. Palpi with the 2nd joint reaching vertex of head.

$a^4$. Fore wing with vein 7 straight and well separated from 8, 9.

$a^5$. Antennæ with the shaft smooth . . . . 7. PYCNARMON, [p. 256.

$b^5$. Antennæ with the shaft annulate . . . . 4. AULACOPTERA, [p. 254.

$b^4$. Fore wing with vein 7 curved and approximated to 8, 9 for about one-third length.

$a^5$. Fore wing with veins 4, 5 from cell . . 6. RHIMPHALEODES, [p. 255.

$b^5$. Fore wiug with veins 4, 5 stalked . . . . 5. XANTHOMELÆNA, [p. 255.

$b$. Palpi with the 3rd joint short, naked, and obtuse.

$a'$. Maxillary palpi dilated with scales. . . . . . . . 12. EURRHYPARODES, [p. 263.

$b'$. Maxillary palpi filiform.

$a^2$. Palpi with no tuft of hair at end of 2nd joint.

$a^3$. Palpi with the 2nd joint moderately and evenly scaled in front.

$a^4$. Fore wing with vein 7 nearly straight and well separated from 8, 9 . . . . . . . . 41. LYGROPIA, p. 341.

$b^4$. Fore wing with vein 7 curved and approximated to 8, 9 for about one-third length . . . . . . . . . . . . . . . . . . . . . . . . . . . . 40. SYLEPTA, p. 328.

$b^3$. Palpi with the 2nd joint broadly rounded with scales in front; fore wing with vein 7 curved and approximated to 8, 9 . 38. BOTYODES, p. 325.

$c^3$. Palpi with the 2nd joint angled with scales in front.

$a^4$. Fore wing with vein 7 curved and approximated to 8, 9 for about one-third length; the outer margiu excised below apex . . . . . . . . . . . . . . . . . . . . . . . . . . . 37. CERATARCHA, [p. 324.

$b^4$. Fore wing with vein 7 straight aud well separated from 8, 9; the outer margiu evenly curved . . . . . . . . . . . . . . . . . . . . . 35. GONIORHYNCHUS, [p. 322.

$b^{2}$. Palpi with the 2nd joint long and with a tuft of hair at extremity hiding the 3rd joint .............................. 36. DEBA, p. 323.

$c$. Palpi with a triangular tuft in front of 3rd joint.

$a'$. Palpi with the tuft on 3rd joint long, pointed, and extending to the front of the broadly fringed 2nd joint.

$a^{2}$. Fore wing with vein 7 curved and approximated to 8, 9 for about one-third length .............................. 13. HETEROCNEPHES, [p. 265.

$b^{2}$. Fore wing with vein 7 straight and not approximated to 8, 9.................. 16. PAGYDA, p. 270.

$b'$. Palpi with the tuft on 3rd joint short.

$a^{2}$. Palpi with the 3rd joint short and blunt.

$a^{3}$. Palpi with the triangular 3rd joint not set on at an angle.

$a^{4}$. Hind wing with vein 7 anastomosing with 8 to about three-fourths of wing.

$a^{5}$. Antennæ with the shaft not annulate.

$a^{6}$. Hind wing with vein 3 not approximated to 4.

$a^{7}$. Frons flat and oblique ........... 22. BOCCHORIS, [p. 281.

$b^{7}$. Frons rounded .................. 34. NACOLEIA, p. 312

$b^{6}$. Hind wing with veins 3, 4 approximated for a short distance, 5 from above angle .................... 15. ÆTHOLIX, p. 268.

$b^{5}$. Antennæ with the shaft annulate.

$a^{6}$. Maxillary palpi well developed.

$a^{7}$. Antennæ shorter than the fore wing; vein 7 straight and not approximated to 8, 9 ...................... 21. SYNGAMIA, p. 279.

$b^{7}$. Antennæ longer than the fore wing; vein 7 curved and approximated for some distance to 8, 9 ........... 20. RHIMPHALEA, [p. 278.

$b^{6}$. Maxillary palpi extremely minute .. 17. ERCTA, p. 273.

$b^{4}$. Hind wing with vein 7 anastomosing with 8 almost to apex.

$a^{5}$. Fore wing with vein 10 free and closely approximated to 8, 9 .............. 19. MARASMIA, [p. 275.

$b^{5}$. Fore wing with veins 10, 11 stalked .. 18. CNAPHALOCROCIS, [p. 275.

$b^{3}$. Palpi with the triangular 3rd joint set on at an angle ...................... 14. AGROTERA, [p. 266.

$b^{2}$. Palpi with the 3rd joint long and acuminate.

$a^{3}$. Palpi erect, not recurved.

$a^{4}$. Fore wing with vein 7 curved and approximated to 8, 9 for a short distance. 23. ULOPEZA, p. 287.

$b^{4}$. Fore wing with vein 7 straight and well separated from 8, 9 ............... 25. CHALCIDOPTERA, [p. 291.

$b^{3}$. Palpi recurved over head, in male long and with a very large tuft of curved hair in front .............................. 24. NOSOPHORA, [p. 288.

$d$. Palpi with the 2nd and 3rd joints conically scaled and gradually tapering to apex.

$a'$. Hind wing with veins 4, 5 from cell.

$a^{3}$. Maxillary palpi filiform.

$a^{4}$. Frons not prominent.

$a^5$. Fore wing with vein 7 curved and approximated to 8, 9 for about one-third length.
$a^6$. Hind wing with veins 4, 5 not approximated towards origin ........ 31. PHRYGANODES, [p. 300.
$b^6$. Hind wing with veins 4, 5 approximated for a short distance ........ 30. NEVRINA, p. 299.
$b^5$. Fore wing with vein 7 nearly straight and well separated from 8, 9.
$a^6$. Frons rounded; hind wing with veins 4, 5 not or hardly approximated towards origin.
$a^7$. Hind tibiæ with the medial spurs absent in ♂, the inner medial spur minute in ♀ .................... 32. OLIGOCENTRIS, [p. 304.
$b^7$. Hind tibiæ with the inner medial spur well developed ............ 33. DICHOCROCIS, [p. 305.
$b^6$. Frons flat and oblique; hind wing with veins 4, 5 approximated for a short distance ........................ 29. TYSPANODES, [p. 298.
$b^4$. Frons with a rounded prominence; antennæ about one and a half times length of fore wing ........................ 28. FILODES, p. 296.
$b^3$. Maxillary palpi dilated with scales.
$a^4$. Hind wing with veins 4, 5 approximated for a short distance ................ 26. CAPRINIA, p. 294.
$b^4$. Hind wing with veins 4, 5 not approximated; palpi of male with the 3rd joint long, hollowed out and containing a tuft of hair........................... 39. PRORODES, p. 328.
$b'$. Hind wing with veins 4, 5 stalked, 4 almost obsolete in male ...................... 27. MACARETÆRA, [p. 295.
$e$. Palpi with the 3rd joint porrect.
$a'$. Palpi with the 2nd joint broadly fringed with hair in front, the 3rd lying on it.
$a^2$. Maxillary palpi strongly dilated with scales.
$a^3$. Fore wing with vein 7 curved and approximated to 8, 9 for some distance.
$a^4$. Hind wing with veins 4, 5 not approximated towards origin .............. 43. GLYPHODES, [p. 345.
$b^4$. Hind wing with veins 4, 5 approximated for a short distance; fore wing long and narrow ...................... 42. AGATHODES [p. 344.
$b^3$. Fore wing with vein 7 nearly straight and well separated from 8, 9, the wing long and narrow ........................ 46. EUCLASTA, [p. 363.
$b^2$. Maxillary palpi filiform.
$a^3$. Fore wing with vein 7 curved and approximated to 8, 9 for some distance.
$a^4$. Hind wing with veins 4, 5 not approximated towards origin .............. 44. PYGOSPILA, [p. 361.
$b^4$. Hind wing with veins 4, 5 approximated for a short distance ............... 47. POLYTHLIPTA, [p. 364.
$b^3$. Fore wing with vein 7 nearly straight and well separated from 8, 9 .......... 48. LEPYRODES, [p. 367.

$b'$. Palpi with the 2nd joint moderately scaled in front, the 3rd projecting free.
$a^2$. Frons rounded and not prominent ...... 45. Heortia, p. 363.
$b^2$. Frons with a rounded prominence.
$a^3$. Palpi with the 3rd joint minute; hind wing with veins 4, 5 approximated for a short distance ...................... 49. Analyta, p. 369.
$b^3$. Palpi with the 3rd joint long; hind wing with veins 4, 5 well separated at origin. 50. Leucinodes, [p. 370.
*f*. Palpi obliquely upturned, with tufts of hair at end of 1st and 2nd joints, the 3rd well developed and obtuse.
$a'$. Maxillary palpi filiform; hind wing with veins 4, 5 not approximated towards origin. 52. Hellula, p. 373.
$b'$. Maxillary palpi dilated with scales; hind wing with veins 3, 4, 5 approximated for a short distance ........................ 51. Crocidolomia, [p. 371.
B. Palpi porrect.
*a*. Palpi with the 3rd joint naked.
$a'$. Frons with a large flat corneous plate excised in front .............................. 88. Tegostoma, [p. 443.
$b'$. Frons with a rounded prominence.
$a^2$. Fore wing with veins 8, 9 stalked; hind wing with vein 5 from lower angle of cell. 89. Noctuelia, [p. 444.
$b^2$. Fore wing with veins 8, 9 from cell; hind wing with vein 5 from middle of discocellulars ............................ 91. Simæthistis, [p. 446.
$c'$. Frons rounded or flat and not prominent.
$a^2$. Palpi straight and not downcurved at extremity.
$a^3$. Fore and hind wings with veins 4, 5 from cell.
$a^4$. Palpi with the 2nd joint fringed with hair below towards extremity.
$a^5$. Maxillary palpi triangularly scaled .. 90. Heliothela, [p. 446.
$b^5$. Maxillary palpi slightly dilated with scales......................... 57. Archernis, [p. 378.
$c^5$. Maxillary palpi long and filiform .... 59. Omphisa, p. 382.
$b^4$. Palpi with the 2nd joint fringed above and below with hair.
$a^5$. Fore wing with vein 7 straight and well separated from 8, 9 ................ 56. Thliptoceras, [p. 377.
$b^5$. Fore wing with vein 7 curved and approximated to 8, 9 for some distance; antennæ of male unipectinate for one-third length ...................... 55. Meroctena, [p. 376.
$b^3$. Fore and hind wings with veins 4, 5 stalked .............................. 53. Furcivena, [p. 374.
$b^2$. Palpi with the 3rd joint downcurved .... 54. Sameodes, p. 374.
*b*. Palpi with the 3rd joint hidden by hair.
$a'$. Palpi rostriform, the 3rd joint downcurved.
$a^2$. Palpi projecting about the length of head; maxillary palpi with a pointed tuft at extremity.
$a^3$. Fore wing subtriangular; hind wing with veins 3, 4, 5 not approximated ........ 78. Protrigonia, [p. 414.

$b^3$. Fore wing broad, the costa lobed near base; hind wing with veins 3, 4, 5 approximated for a short distance............ 77. AGASTYA, p. 413.
$b^2$. Palpi projecting about twice the length of head.
$a^3$. Hind wing with veins 4, 5 not approximated towards origin................. 84. CALAMOCHROUS, [p. 419.
$b^3$. Hind wing with veins 4, 5 approximated for a short distance.
$a^4$. Maxillary palpi with a pointed tuft at extremity........................ 79. NOORDA, p. 414.
$b^4$. Maxillary palpi dilated with scales.
$a^5$. Frons with a conical prominence .... 83. BŒOTARCHA, [p. 418.
$b^5$. Frons flat or rounded and not prominent.
$a^6$. Abdomen and legs short and moderately stout ...................... 82. MECYNA, p. 417.
$b^6$. Abdomen and legs long and slender.. 75. LEPIDONEURA, [p. 411.
$b'$. Palpi triangularly scaled.
$a^2$. Frons rounded or flat and not prominent.
$a^3$. Antennæ from one to one and a half times length of fore wing.
$a^4$. Antennæ with the shaft annulated; fore wing with veins 4, 5 closely approximated for a short distance .......... 63. MARUCA, p. 393.
$b^4$. Antennæ with the shaft not annulated; fore wing with veins 4, 5 not approximated towards origin .............. 65. TETRIDIA, p. 395.
$b^3$. Antennæ more than one and a half times length of fore wing.................. 64. ADELOIDES, [p. 394.
$c^3$. Antennæ shorter than the fore wing.
$a^4$. Maxillary palpi with a pointed tuft of hair in front.
$a^5$. Fore wing with vein 7 curved and approximated to 8, 9 ................ 80. DAUSARA, p. 415.
$b^5$. Fore wing with vein 7 straight and well separated from 8, 9 .......... 81. HEMISCOPIS, [p. 416.
$b^4$. Maxillary palpi strongly dilated with scales at extremity.
$a^5$. Antennæ with the shaft not annulate; hind wing with the outer margin not excised below apex.
$a^6$. Legs of moderate length .......... 86. PIONEA, p. 422.
$b^6$. Legs very long and slender; fore femora and tibiæ fringed in male with long hair ...................... 76. ANTIGASTRA, [p. 412.
$b^5$. Antennæ with the shaft annulate; hind wing with the outer margin excised below apex ...................... 74. DIASEMIA, p. 410.
$c^4$. Maxillary palpi filiform or hardly dilated with scales at extremity.
$a^5$. Hind wing with veins 3, 4, 5 approximated for a short distance.......... 67. PARBATTIA, [p. 399.
$b^5$. Hind wing with veins 4, 5 approximated for a short distance, 3 separate.
$a^6$. Hind wing with vein 7 not anastomosing with 8; fore wing long and narrow ........................ 58. TERASTIA, p. 380.

$b^6$. Hind wing with vein 7 anastomosing with 8.

$a^7$. Fore wing long and narrow, vein 3 from well before angle of cell .... 69. NOMOPHILA, [p. 401.

$b^7$. Fore wing subtriangular; vein 3 from close to angle of cell.

$a^8$. Tibiæ fringed with hair; build stout. 66. PACHYNOA, [p. 396.

$b^8$. Tibiæ smoothly scaled; build slender.

$a^9$. Fore wing with the apex acute, the outer margin angled at vein 4; hind wing with the outer margin produced at vein 6 and excurved at middle; a large tuft of hair at lower angle of cell .... 68. DISCOTHYRIS, [p. 400.

$b^9$. Both wings with the outer margin evenly curved.

$a^{10}$. Frons flat and oblique ........ 62. CROCIDOPHORA, [p. 387.

$b^{10}$. Frons rounded .............. 70. PACHYZANCLA, [p. 401.

$c^5$. Hind wing with veins 4, 5 not approximated towards origin.

$a^6$. Antennæ with the shaft annulated with rings at the joints .......... 60. ISCHNURGES, [p. 383.

$b^6$. Antennæ with the shaft smooth and ciliated.

$a^7$. Hind tibiæ with the spurs all long and equal ...................... 61. ISOCENTRIS, [p. 385.

$b^7$. Hind tibiæ with the outer medial spur not more than two-thirds length of inner ...... ............... 87. PYRAUSTA, p. 429.

$b^2$. Frons flattened and produced to a rounded extremity; fore wing of male with tufts of hair on inner margin; hind wing with tufts near lower angle of cell .......... 71. LOXONEPTERA, [p. 405.

$c^2$. Frons produced to a pointed conical prominence ............................ 73. PHLYCTÆNODES, [p. 407.

$d^2$. Frons with a rounded prominence ......

$a^3$. Maxillary palpi filiform; hind wing with veins 4, 5 approximated for a short distance ........................... 72. PROŒDEMA, [p. 426.

$b^3$. Maxillary palpi dilated with scales; hind wing with veins 4, 5 not approximated towards origin ...................... 85. METASIA, p. 421.

## Genus **ORTHORAPHIS**, nov.

Type, *O. obfuscata*, Hmpsn.

*Range*. Ceylon.

Palpi with the 2nd joint porrect and fringed with hair above and below, the 3rd upturned, well developed, and acuminate; maxillary palpi large and dilated with scales at extremity; frons rounded; antennæ thickened and flattened; tibiæ with the outer spurs nearly as long as inner. Fore wing long and narrow; the outer margin excised below apex and towards outer angle, excurved at middle; vein 3 from before angle of cell; 4, 5 stalked; 6 absent; 7 straight and well separated from 8, 9. Hind wing with vein 3

from near angle of cell; 4, 5 stalked; 6, 7 from upper angle; 7 anastomosing with 8; the outer margin excised below apex and towards anal angle.

4763. **Orthoraphis obfuscata**, *Hmpsn. Ill. Het.* ix, p. 161, pl. 172, fig. 4.

♂. Yellowish white suffused with black-brown; palpi black at sides; abdomen ringed with white. Fore wing with the pale ground-colour almost confined to the inner area; a series of pale specks on costa; a slightly sinuous pale antemedial line outlined with black towards inner margin; a black discocellular lunule with pale outer edge; a pale sinuous submarginal line. Hind wing pale; a pale sinuous submarginal line, the area beyond it suffused with fuscous, some fuscous inside it below vein 2; a black speck at anal angle. Underside of hind wing and costal area of fore wing irrorated with black.

Fig. 149.
*Orthoraphis obfuscata*, ♂. 1/1.

*Hab.* Ceylon. *Exp.* 18 millim.

## Genus SUFETULA.

Sufetula, *Wlk. Cat.* xix, p. 946 (1859).
Mirobriga, *Wlk. Cat.* xxvii, p. 131 (1863).
Lœtrina, *Wlk. Cat.* xxvii, p. 132.
Pseudochorentes, *Snell. Tijd. v. Ent.* xxiii, p. 202 (1880).

Type, *S. sunidesalis*, Wlk.
*Range.* N.E. India; Ceylon; Malayan subregion.

Palpi upturned, the 2nd joint moderately scaled and not reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi long and dilated with scales; frons rounded; a tuft of hair between antennæ, which are ciliated; spurs of equal length. Fore wing with the outer margin excised below apex; vein 3 from before angle of cell; 4, 5 from angle; 7 and 10 well separated from 8, 9. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8; the outer margin excised below apex and towards anal angle.

4764. **Sufetula sunidesalis**, *Wlk. Cat.* xix, p. 947.
Mirobriga albicans, *Wlk. Cat.* xxvii, p. 132.
Lœtrina flexalis, *Wlk. Cat.* xxvii, p. 132.
Pseudochoreutes choreutalis, *Snell. Tijd. v. Ent.* xxiii, p. 202, & xxvii, pl. 6, fig. 8.

♂. Brownish grey; head, palpi, and base of abdomen marked with fuscous. Fore wing with the costa fuscous, with oblique pale antemedial strigæ and three pale annulate postmedial spots; a prominent black discocellular spot; a pale dark-edged submarginal line

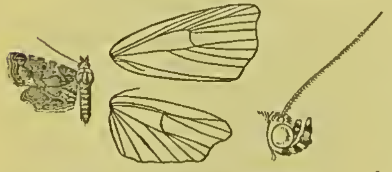

Fig. 150.—*Sufetula sunidesalis*, ♂. 1/1.

excurved between veins 7 and 8, with black patch beyond it at costa; a dark marginal crenulate line. Hind wing with diffused fuscous antemedial band; a discocellular speck; a pale sinuous postmedial line; a fine dark crenulate marginal line and a line through the cilia.

*Hab.* Sikhim; Margharita, Assam; Ceylon; Malayan subregion. *Exp.* 14 millim.

4765. **Sufetula rectifascialis**, n. sp.

Head, thorax, and abdomen fuscous and white; palpi with the extremity of 2nd and 3rd joints white; wings pale suffused with fuscous brown. Fore wing with oblique antemedial line, with whitish band on its inner edge; a black discocellular spot; three pale annuli on outer half of costa; an oblique postmedial line with white band on its outer edge bent inwards at vein 6. Hind wing with oblique straight ante- and postmedial lines, the former with the black discocellular spot on it, the latter with white band on its outer edge; a submarginal line waved towards anal angle.

*Hab.* Ceylon (*Pole*). *Exp.*, ♂ 12, ♀ 14 millim. Type in B. M.

## Genus MASSEPHA.

Massepha, *Wlk. Cat.* xvii, p. 488 (1859).

Type, *M. absolutalis*, Wlk.

*Range.* India; Ceylon; Java.

Palpi upturned, the 2nd joint moderately fringed with scales in front and not reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi minute; frons rounded; antennæ of male annulated; tibiæ with the outer spurs two-thirds length of inner. Fore wing with the apex acute and somewhat produced; veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with the cell short, veins 3, 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. Hind wing with two slight indentations of the outer margin below veins 7 and 6.

4766. **Massepha absolutalis**, *Wlk. Cat.* xvii, p. 489; *C. & S.* no. 4332.
Physematia pollutalis, *Snell. Tijd. v. Ent.* xxiii, p. 240, & xxvii, pl. 4, fig. 10.

Fig. 151.—*Massepha absolutalis*, ♂. 1/1.

Ochreous white, thickly striated with brown. Fore wing with a dark spot below middle of cell; some dark specks on costa; an ill-defined pale submarginal line bent inwards at vein 2, the area beyond it somewhat darker, with a marginal series of dark specks. Hind wing with the apical area darker; a marginal series of dark specks.

The Bhután specimen has the basal area of fore wing, the marginal area, and the apical area of hind wing prominently dark.

*Hab.* Punjab; Bhután; Calcutta; Ceylon; Java. *Exp.* 16–22 millim.

4767. **Massepha bengalensis**, *Moore, Lep. Atk.* p. 211; *C. & S.* no. 4428.

Pure white; thorax with black-brown spots; legs and abdomen banded with black. Fore wing with three series of black spots on basal area; a discocellular spot; a postmedial spot on costa; a postmedial line nearly straight from costa to vein 3, then retracted to lower angle of cell; a small spot on the cilia below apex and two larger spots above outer angle. Hind wing with subbasal spot; a diffused oblique antemedial band with a discocellular spot beyond it and met at inner margin by a sinuous postmedial band arising from a spot on costa and sending streaks inwards below cell; a sinuous submarginal band and a marginal band.

*Hab.* Calcutta; Khásis. *Exp.* 20 millim.

SECT. II. Hind wing with the outer margin evenly curved.

4768. **Massepha carbonalis**, *Warr. A. M. N. H.* (6) xvii, p. 148.

♂. Uniform glossy black-brown.

*Hab.* Khásis. *Exp.* 16 millim.

## Genus AULACOPTERA, nov.

Type, *A. fuscinervalis*, Swinh.

*Range.* Assam.

Palpi upturned and slender, the 2nd joint reaching vertex of head, the 3rd long and acuminate; maxillary palpi filiform; frons rounded; antennæ annulate; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9, to which 10 is approximated; male with vein 11 curved and running round a furrow of somewhat ribbed membrane below the costa. Hind wing with vein 3 from angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle.

4769. **Aulacoptera fuscinervalis**, *Swinh. A. M. N. H.* (6) xvi, p. 300.

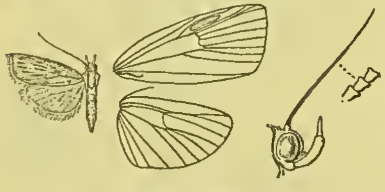

Fig. 152.
*Aulacoptera fuscinervalis*, ♂. ½.

♂. Whitish suffused with pale brown; palpi fuscous at sides. Fore wing with the veins streaked with brown; three dark spots on costa; an ill-defined antemedial line angled on median nervure; a streak beyond discocellulars; a postmedial line, composed of a series of short streaks, very highly excurved from costa to vein 3, then retracted to

below angle of cell; the margin brown. Hind wing uniform whitish.

*Hab.* Khásis; Nágas. *Exp.* 20 millim.

## Genus XANTHOMELÆNA, nov.

Type, *X. schematias*, Meyr.

*Range.* Burma; Malayan subregion to Celebes.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi small and filiform; frons rounded; antennæ of male thickened and flattened; tibiæ with the outer spurs half the length of inner; abdomen long and slender with large protrusible anal tufts. Fore wing long and rather narrow; the cell short; vein 2 from angle; 3 approximated for some distance to 4, 5, which are on a long stalk; 7 curved and approximated to 8, 9; male with a large tuft of scales on underside in end of cell from subcostal nervure met by a slight fringe from median nervure; female with a small tuft from subcostal nervure. Hind wing with the cell short; vein 3 from angle; 4, 5 approximated for some distance; 6, 7 shortly stalked.

4770. **Xanthomelæna schematias**, *Meyr. Trans. Ent. Soc.* 1894, p. 458.

Orange-yellow; abdomen with paired black spots on 3rd segment. Fore wing with obliquely placed antemedial black spots on costa and above inner margin; a medial black bar from costa to vein 5; a postmedial spot above inner margin; a submarginal spot between veins 3, 4; the interspaces pale and thinly scaled. Hind wing yellowish white, sometimes with apical black spot and submarginal spot on vein 3.

Fig. 153.
*Xanthomelæna schematias*, ♂. 1/1.

*Hab.* Tenasserim; Pulo Laut; Borneo; Sumbawa; Celebes. *Exp.* 20 millim.

## Genus RHIMPHALEODES.

Rhimphaleodes, *Hmpsn. Ill. Het.* ix, p. 174 (1893).

Type, *R. macrostigma*, Hmpsn.

*Range.* Ceylon.

Differs from *Rhimphalea* in the 2nd joint of palpi being almost smoothly scaled, the 3rd well developed, naked, and acuminate; antennæ shorter than fore wing, the shaft smooth, male with the basal joint dilated with tufts of hair from inner side, the shaft excised at base, then fringed with scales on inner side for a short distance; hind tibiæ with a tuft of long scales from extremity, the 1st joint of tarsus fringed with long scales on each side at base.

4771. **Rhimphaleodes macrostigma**, *Hmpsn. Ill. Het.* ix, p. 174, pl. 174, fig. 9.

♂. Whitish, slightly tinged with fuscous; head and collar fuscous; abdomen ringed with fuscous. Fore wing with fuscous streak below base of costa; an oblique subbasal band from median nervure to inner margin; a curved antemedial line; a small quadrate black spot in cell and large deep black rounded discocellular patch with small white specks near its upper edge; the postmedial minutely waved line straight from costa to vein 5, excurved between veins 5 and 2, then retracted to below angle of cell and with an oblique line across its sinus; the outer area fuscous, its inner edge sinuous and only leaving a narrow pale band beyond the postmedial line. Hind wing with the veins near end of cell streaked with fuscous, the postmedial line indistinct, minutely waved, very much bent outwards between veins 5 and 2 and with a line across the sinus; the apical area fuscous, a series of spots inside the margin and a patch near anal angle.

Fig. 154.—*Rhimphaleodes macrostigma*, ♂. 1/1.

*Hab.* Ceylon. *Exp.* 26 millim.

## Genus PYCNARMON.

Pycnarmon, *Led. Wien. ent. Mon.* 1863, p. 441.
Aripana, *Moore, Lep. Ceyl.* iii, p. 312 (1886).

Type, *P. jaguaralis*, Guen.
*Range.* Oriental and Australasian subregions.

Palpi upturned, the 2nd joint broadly scaled in front and reaching vertex of head, the 3rd long and acuminate; maxillary palpi minute and filiform; frons rounded; tibiæ with the outer spurs about half the length of inner; abdomen with lateral tufts on terminal segments. Fore wing with veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with veins 3, 4, 5 from angle of cell, which is short; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. (*Pycnarmon*). Antennæ of male with the shaft thickened to about one-third length, where there is a cleft fringed with hair on each side.

A. *Antennæ of male with a tuft of hair projecting from the upper side of the cleft and diminishing teeth of scales beyond it for a short distance.*

4772. **Pycnarmon jaguaralis**, *Guen. Delt. & Pyr.* p. 283; *C. & S.* no. 4316.

Pure white; antennæ fuscous; fore tibiæ spotted with black;

collar, tegulæ, and thorax black-spotted; abdomen with paired black spots on basal and 3rd segments; the three terminal segments orange, the anal tuft black. Fore wing with black subbasal and antemedial bands; a large black discocellular spot; a postmedial spot from costa to vein 5 and another from vein 2 to inner margin; an apical black spot and a submarginal spot between veins 4 and 2. Hind wing with black discocellular line continued and becoming orange towards anal angle; a postmedial black line from costa to vein 2; a submarginal line with a black spot on it on vein 2 and terminating in a small orange patch at anal angle; an apical black spot; both wings with black marginal lines and brownish line through base of cilia.

Fig. 155.—*Pycnarmon jaguaralis*, ♂. ¾.

*Hab.* Dharmsála; Sikhim; Assam; Malacca; Celebes; Mysol; Waigiou; New Guinea; Solomons. *Exp.*, ♂ 30, ♀ 34 millim.

B. *Antennæ of male without tuft of hair from the cleft or scale-teeth beyond it.*

4773. **Pycnarmon virgatalis**, *Moore, P. Z. S.* 1867, p. 92, pl. 7, fig. 10; *C. & S.* no. 4317.

Differs from *jaguaralis* in the abdomen having a pair of black spots on the 2nd segment only. Fore wing with the discocellular spot replaced by a band; a band from vein 5 to inner margin just beyond the cell and postmedial band from costa to vein 5; a submarginal band from vein 5 to inner margin and a marginal band. Hind wing with the postmedial band continued to anal angle, the submarginal ending at vein 2; a marginal band.

*Hab.* Dharmsála; Sikhim; Bhután; Khásis; Ceylon. *Exp.* 20 millim.

4774. **Pycnarmon abraxalis**, *Wlk. Cat.* xxxiv, p. 1349; *C. & S.* no. 4313.

White; the head and thorax striped with fuscous; legs tinged with fuscous; abdomen with paired lateral series of black spots, the terminal half orange with black spot on the anal tuft. Fore wing with fuscous subbasal and antemedial bands; a large discocellular patch; a spot beyond lower angle of cell with large spot between it and inner margin; a postmedial patch from costa to vein 5; submarginal spots below middle and above outer angle; a marginal fuscous band widest at costa. Hind wing with discocellular spot; a sinuous postmedial band terminating at the large anal orange patch, which extends from vein 4 to anal angle and has an irregular fuscous patch on its inner edge, sending a tooth

inwards on vein 2 and with three black spots on it; a subapical fuscous spot and marginal band ending at the orange patch.

*Hab.* Sikhim; Khásis. *Exp.* 36 millim.

SECT. II. (*Aripana*). Antennæ of male simple and ciliated.

A. *Fore wing of male below with a fringe of large curved scales in the cell arising from the subcostal nervure.*

4775. **Pycnarmon alboflavalis**, *Moore, Lep. Atk.* p. 220; *C. & S.* no. 4030.

♂. White; thorax with the vertex black; abdomen with paired black spots on basal and 3rd segments and a black band on 5th segment. Fore wing with two black costal spots and three bands from median nervure to inner margin on basal area; a discocellular black spot and large spots on origin of veins 2 to 5; a postmedial line, straight from costa to vein 5, then bent outwards and fine, a spot below it on inner margin; the marginal area orange with black speck at apex and double submarginal black spot on vein 4. Hind wing white, with black spot at base of inner margin; a double series of black spots from below lower angle of cell to anal angle; the marginal area orange, with submarginal black spot on vein 4 and some specks on margin towards anal angle.

*Hab.* Sikhim; Andamans. *Exp.* 20 millim.

B. *Fore wing of male with no fringe of scales in the cell below.*

4776. **Pycnarmon caberalis**, *Guen. Delt. & Pyr.* p. 284; *C. & S.* no. 4310.

Zebronia abdicalis, *Wlk. Cat.* xvii, p. 480; *Led. Wien. ent. Mon.* 1863, pl. 17, fig. 12.

Conchylodes corycialis, *Snell. Tijd. v. Ent.* xxiii, p. 238, & xxvii, p. 44, pl. iv, fig. 6.

Pure white; tegulæ each with a black spot; fore and mid legs black-spotted; abdomen with pairs of lateral black spots near base, some yellow on terminal segments, and an orange-and-black band before anal tuft. Fore wing with numerous black specks on costa; with brown striæ from them to subcostal nervure, three larger spots also being developed on basal half and two U-shaped spots beyond the middle; traces of an obliquely sinuous antemedial line; a black spot on inner margin near base and discocellular spot, which latter in the form *caberalis* is brown, in *abdicalis* black; a postmedial brown line from vein 5 terminating in a black spot on inner margin; a brown line or band from the outer of the two U-shaped marks to vein 4; two conjoined apical black spots with a more or less developed and defined band from them to vein 4, which has a submarginal black spot below it. Hind wing with discocellular black speck; a postmedial brown line from vein 5 terminating in a black spot on inner margin; a brown line from costa to vein 4; a black apical spot and submarginal spot below vein 4; some slight brown suffusion on the margin; both wings with fine marginal brown line and line through the cilia.

Some specimens have an ochreous brown tinge.

*Hab.* China; Formosa; throughout India, Ceylon, and Burma; Pulo Laut; Borneo; Java; Celebes; Flores; Sumbawa; Fiji. *Exp.* 20–22 millim.

4777. **Pycnarmon meritalis**, *Wlk. Cat.* xvii, p. 479; *C. & S.* no. 4312.
Zebronia plexippusalis, *Wlk. Cat.* xvii, p. 485.
Conchylodes baptalis, *Snell. Tijd. v. Ent.* xxiii, p. 238, & xxvii, p. 44, pl. 4, fig. 7.
Aripana annulata, *Warr. A. M. N. H.* (6) xviii, p. 168.

Differs from *caberalis* in the fore wing being without the numerous black spots and brown striæ on the costa, two black spots and the two U-shaped marks only being developed; a black speck in cell and a small discocellular spot; the antemedial and two postmedial lines faint and yellow; the outer margin with a maculate black line becoming a fine line at vein 4. Hind wing with the lines faint and yellow.

*Hab.* China; Sikhim; Ceylon; Borneo; Java; Celebes; Sumbawa; Australia. *Exp.* 16–18 millim.

4778. **Pycnarmon lactiferalis**, *Wlk. Cat.* xvii, p. 480; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 28; *C. & S.* no. 4311.
Zebronia argyria, *Butl. Ill. Het.* iii. p. 76, pl. 59, fig. 9.
Conchylodes paucipunctalis, *Snell. Trans. Ent. Soc.* 1890, p. 633, pl. xix, fig. 2.

Differs from *meritalis* in the black spots near base of costa of fore wing, in cell, and on discocellulars being larger; the two U-marks minute or only appearing as black specks; the antemedial line of fore wing and the two postmedial lines of both wings developed into ill-defined yellow bands; the black on margin replaced by a yellow band from apex to vein 4 of each wing.

*Hab.* Japan; China; N.W. and E. Himalayas; Ceylon; Burma; Pulo Laut; Borneo; Celebes. *Exp.* 24 millim.

4779. **Pycnarmon æriferalis**, *Moore, P. Z. S.* 1877, p. 618; *C. & S.* no. 4309.

Differs from *lactiferalis* in being ochreous; the black spots much smaller. Fore wing with the antemedial line brown and curved; the postmedial line blackish, straight from the costa to the sub-marginal black spot, which is further from the margin, then retracted to near angle of cell, and straight to inner margin; an apical black speck. Hind wing with the postmedial lines black, the submarginal spot further from the margin.

*Hab.* Sikhim; Andamans. *Exp.* 22 millim.

4780. **Pycnarmon marginalis**, *Snell. Trans. Ent. Soc.* 1890, p. 635.

♀. Glossy white; anal tuft black above. Fore wing with black spots at base of costa and vein 1; subbasal and antemedial larger spots on costa; a discocellular spot; the postmedial line strongly marked and outwardly oblique from costa to vein 2, then obsolescent

and retracted to below angle of cell. Hind wing with discocellular spot; the postmedial line nearly straight from costa to vein 2, then retracted to below angle of cell; both wings with very prominent broad black marginal line and a fine line through the cilia.

*Hab.* Sikhim; Khásis. *Exp.* 20 millim.

4781. **Pycnarmon nebulosalis**, n. sp.

♀. White thickly mottled with brown. Fore wing wholly brown except some white specks near base, a patch in cell, an apical patch, and a spot at middle of outer margin; traces of a dark waved antemedial line; a dark-edged white discocellular spot; a dark waved postmedial line defined by white and bent outwards between veins 7 and 4; a dark marginal line. Hind wing with the basal area white; a fuscous discocellular spot; an irregularly-waved postmedial line defined by white and with some diffused fuscous on its inner edge; a dark marginal line with some dentate white marks on its inner edge.

*Hab.* Ceylon (*Pole*). *Exp.* 18 millim. Type in B.M.

## Genus RAVANOA.

Ravanoa, *Moore, Lep. Ceyl.* iii, p. 284 (1885).

Type, *R. xiphialis*, Wlk.

*Range.* Ceylon; Burma; Borneo; Mysol.

Palpi obliquely upturned and not reaching vertex of head, the 2nd joint broadly fringed in front, the 3rd well developed and acuminate; maxillary palpi short and filiform; frons flat and oblique; antennæ of male minutely ciliated; tibiæ with the spurs long and nearly equal. Fore wing with the apex somewhat produced and the outer margin oblique; veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9; 10 approximated to 8, 9. Hind wing with the cell short; veins 3, 4, 5 from the angle; 6, 7 from upper angle, 7 anastomosing with 8.

4782. **Ravanoa xiphialis**, *Wlk. Cat.* xvii, p. 483.
Zebronia bilineolalis, *Wlk. Cat.* xxxiv, p. 1350; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 9; *C. & S.* no. 4120.

White; the head and thorax suffused with cupreous brown; abdomen ringed with brown; a black band before the anal tuft. Fore wing with brown costal fascia; an antemedial line; a discocellular spot; the postmedial line straight from costa to vein 2, then retracted and joining the discocellular spot, and straight to inner margin; a curved submarginal and a marginal band. Hind wing with oblique antemedial and medial lines, the latter terminating at anal angle, a submarginal band terminating at vein 2; a marginal band.

Fig. 156.
*Ravanoa xiphialis*, ♂. 1/1.

*Hab.* Ceylon; Burma; Borneo; Mysol. *Exp.* 18 millim.

## Genus REHIMENA.

Rehimena, *Wlk. Cat.* xxxiv, p. 1492 (1865).
Cyclarcha, *Swinh. A. M. N. H.* (6) xiv, p. 203 (1894).

Type, *R. phrynealis*, Wlk.

*Range.* India; Ceylon; Burma; Borneo.

Palpi upturned, the 2nd joint slightly fringed in front and not reaching vertex of head, the 3rd well developed and acuminate, longer in female than in male; maxillary palpi well developed and filiform; frons rounded; antennæ of male ciliated; tibiæ with the outer spurs half the length of inner. Fore wing with the apex and outer margin rounded; vein 3 from near angle of cell; 4, 5 from angle; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with vein 3 from angle of cell, which is short, approximated to 4, 5 for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

4783. **Rehimena phrynealis**, *Wlk. Cat.* xviii, p. 630; *Moore, Lep. Ceyl.* iii, pl. 181, fig. 5; *C. & S.* no. 4138.
Rehimena dichromalis, *Wlk. Cat.* xxxiv, p. 1492.
Botys haliusalis, *Wlk. Cat.* xviii, p. 695.

Fuscous shot with purple; palpi and frons orange. Fore wing with orange-yellow antemedial band expanding and becoming very broad at costa, its outer edge dentate; a subquadrate yellow patch on costa before apex, widest at costa; a marginal orange line widening at apex; cilia orange, with more or less fuscous towards outer angle. Hind wing fuscous; the cilia often orange towards apex. Underside of thorax, the legs, and hind wing whitish.

*Hab.* Throughout India, Ceylon, and Burma; Borneo. *Exp.* 24 millim.

4784. **Rehimena striolalis**, *Snell. Trans. Ent. Soc.* 1890, p. 604.
Cyclarcha atristrigalis, *Swinh. A. M. N. H.* (6) xiv, p. 204.
Cyclarcha flavinervis, *Swinh. A. M. N. H.* (6) xiv, p. 204.
Cyclarcha pallidicostalis, *Warr. A. M. N. H.* (6) xvii, p. 138.

♂. Ochreous; palpi and legs slightly marked with fuscous. Fore wing with a purplish fuscous speck at base; two short streaks below base of median nervure; two in end of cell; a series in the interspaces beyond the cell, not nearly reaching the margin. Hind wing with slight fuscous suffusion on outer area.

Fig. 157.—*Rehimena striolalis*, ♂. 1/1.

The variety *flavinervis* has the whole of the interspaces of fore wing filled by continuous streaks nearly reaching the outer margin; the abdomen, except anal tuft, and whole of hind wing except the margin suffused with fuscous.

♀ with the streaks of fore wing ill-defined and represented by fuscous suffusion on basal area and a patch beyond the cell

*Hab.* Sikhim; Khásis. *Exp.* 20–22 millim.

## Genus ZINCKENIA.

Hymenia, *Hübn. Verz.* p. 360 (? 1818), non descr.
Zinckenia, *Zell. Lep. Caffr. in K. Svensk. Vet.-Ak. Handl.* 1852, p. 55.

Type, *Z. perspectalis*, Hübn.

*Range.* The tropical and warmer temperate zones.

Palpi upturned, the 2nd joint broadly scaled in front and not reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi long and filiform; frons rounded; antennæ of male nearly simple, the base of shaft excised and a tuft of hair from extremity of basal joint; tibiæ with the spurs long and nearly equal. Fore wing with veins 3, 4, 5 from angle of cell, 7 well separated from 8, 9, to which 10 is approximated. Hind wing with vein 3 from angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

4785. **Zinckenia perspectalis**, *Hübn. Schmett. Eur., Pyr.* fig. 101; *C. & S.* no. 4261.
Spoladea exportalis, *Guen. Delt. & Pyr.* p. 227.
Zinckenia primordialis, *Zell. K. Vet.-Ak. Handl.* 1852, p. 56.

Black-brown; palpi with the 2nd joint banded black and white; abdomen ringed with white. Fore wing with curved white antemedial line; a white spot in end of cell; the postmedial line represented by a white band from costa to vein 5, some white specks (often obsolete) beyond the excurved portion between veins 5 and 2, and a sinuous white line (often reduced to specks) on the retracted portion between vein 2 and inner margin; the cilia white below apex and above outer angle. Hind wing with oblique white medial band not reaching the costa and ending near anal angle, broad below costa and beyond lower angle of cell, then narrowing; the cilia white below apex and at middle.

*Hab.* Nearctic, Neotropical, and Ethiopian regions; Ceylon; Burma; Java; Tahiti. *Exp.* 20 millim.

4786. **Zinckenia fascialis**, *Cram. Pap. Exot.* iv, pl. 398, fig. O.
Phalæna angustalis, *Fabr. Mant. Ins.* ii, p. 222.
Phalæna recurvalis, *Fabr. Ent. Syst.* iii, pt. 2, p. 237; *C. & S.* no. 4262.
Hymenia diffascialis, *Hübn. Verz.* p. 361.
Hydrocampa albifascialis, *Boisd. Faun. Ent. Madag., Lép.* p. 119, pl. 16, fig. 7.

Differs from *perspectalis* in being browner. Fore wing with no antemedial line; a medial black-edged white band developed, not reaching the costa, its outer edge irregular and toothed on vein 2. Hind wing with the band wider, more regular, less oblique, and only slightly narrowing to inner margin.

Fig. 158.—*Zinckenia fascialis*, ♂. 1/1.

*Hab.* Neotropical and Ethiopian regions; Palæarctic Asia from Syria to Japan; the whole Oriental and Australian regions. *Exp.* 24 millim.

## Genus TABIDIA.

Tabidia, *Snell. Tijd. v. Ent.* xxiii, p. 219 (1880).

Type, *T. insanalis*, Snell., from Celebes, Duke of York and Shortland Islands.

*Range.* Ceylon; Malayan and Australasian subregions.

Palpi upturned, the 2nd joint not reaching vertex of head and slightly scaled, the 3rd long and acuminate; maxillary palpi minute and filiform; frons rounded; antennæ of male thickened and flattened; the outer spurs about two-thirds length of inner. Fore wing of male with a recumbent valve of large scales from base of median nervure above; veins 3, 4, 5 well separated at origin, 7 straight and well separated from 8, 9, to which 10 is closely approximated. Hind wing with the cell rather short; veins 3, 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8.

In the typical species vein 2 of the fore wing arises near base of median nervure.

4787. **Tabidia aculealis**, *Wlk. Cat.* xxxiv, p. 1427.
Isopteryx trisignata, *Moore, Lep. Ceyl.* iii, p. 306; *C. & S.* no. 4435.

♂. Head and thorax white; the collar and shoulders spotted with fuscous; abdomen rufous and fuscous, whitish at base. Fore wing whitish; the basal half of costa dark; three large dark annuli, at base, middle, and end of cell, the upper part of their rings broadest, the 1st connected with a dark mark at base of inner margin, and with another on outer side below median nervure connected with the inner margin by an obscure line; the post-medial line arising from a dark costal mark, minutely dentate from costa to vein 2, then retracted to lower angle of cell, the area beyond it pale fulvous. Hind wing with the basal area whitish; antemedial and medial oblique lines ending near anal angle, above which there is a fuscous streak; the area beyond the medial line pale fulvous; a dark line through the cilia.

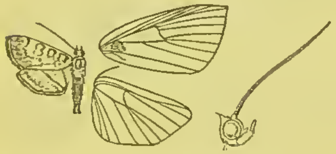

Fig. 159.—*Tabidia aculealis*, ♂. 1/1.

*Hab.* Ceylon; Pulo Laut; Sula Islands, Celebes. *Exp.* 18 millim.

## Genus EURRHYPARODES.

Eurrhyparodes, *Snell. Tijd. v. Ent.* xxiii, p. 215 (1880).
Molybdantha, *Meyr. Trans. Ent. Soc.* 1884, p. 309.

Type, *E. bracteolalis*, Zell.

*Range.* Ethiopian, Oriental, and Australian regions.

Palpi upturned, the 2nd joint broadly scaled in front, the 3rd short and blunt; maxillary palpi nearly as long as the labial and dilated with scales at extremity; frons rounded; antennæ annu-

lated. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9. Hind wing with the outer margin xcised below apex; the cell short; veins 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing strongly with 8.

Sect. I. (*Molybdantha*). Fore wing of male with no postmedial glandular swelling below costa.

4788. **Eurrhyparodes tricoloralis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 31.
Isopteryx abnegatalis, *Wlk. Cat.* xvii, p. 404; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 7; *C. & S.* no. 4436 (part.).
Eurrhyparodes confusalis, *Warr. A. M. N. H.* (6) xviii, p. 218.

Yellow; the head and thorax largely marked and the abdomen ringed with fuscous and leaden-coloured scales. Fore wing with the costa striated with fuscous; an ill-defined waved fuscous subbasal band suffused with leaden scales and formed of conjoined striæ; two similar conjoined spots in cell connected with the inner margin by a band; similar wider postmedial and marginal bands conjoined towards inner margin, the latter leaving more or less yellow on the margin. Hind wing with fuscous leaden-suffused discocellular spot and medial spot on inner margin; a postmedial costal patch; a very irregular broad marginal band interrupted by a yellow patch below apex and an irregular patch at middle, and emitting some striæ or an irregular bar from the middle of its inner side towards the postmedial costal patch.

*Hab.* W. & S. Africa; Punjab; Nilgiris; Ceylon; Java; Australia. *Exp.* 20 millim.

Sect. II. (*Eurrhyparodes*). Fore wing of male with a large postmedial glandular swelling below costa, which is slightly excised toward apex.

4789. **Eurrhyparodes bracteolalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 30; *C. & S.* no. 4436 (part.).
Isopteryx plumbalis, *Guen. Delt. & Pyr.* p. 231.
Isopteryx accessalis, *Wlk. Cat.* xvii, p. 405; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 6; *C. & S.* no. 4437.

Differs from *tricoloralis* in the abdomen being brown, fuscous and leaden-coloured with only the base yellow; the whole fore wing occupied by conjoined patches of leaden-suffused fuscous striæ, except small yellow antemedial and larger postmedial patches below median nervure, and a postmedial irregular maculate band from costa to vein 5. Hind wing without the subapical and medial marginal yellow patches.

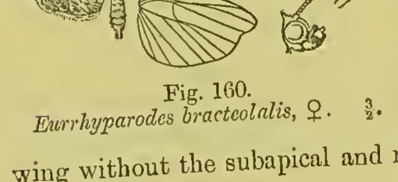

Fig. 160.
*Eurrhyparodes bractcolalis*, ♀. $\frac{3}{2}$.

*Hab.* W. & S. Africa; Japan; China; throughout India, Ceylon, and Burma; Java; Celebes; Australia; New Hebrides. *Exp.* 20 millim.

## Genus HETEROCNEPHES.

Heterocnephes, *Led. Wien. ent. Mon.* 1863, p. 402.
Charitoprepes, *Warr. A. M. N. H.* (6) xvii, p. 136 (1896).

Type, *H. scapulalis*, Led., from Amboina and the Solomons.

*Range.* N.E. India; Burma; Malayan subregion to the Solomons.

Palpi upturned and reaching vertex of head, the 2nd joint very broadly and quadrately scaled, the 3rd with a long pointed tuft in front; maxillary palpi filiform and long; frons oblique; antennæ of male minutely ciliated and as long as fore wing; tibiæ with the outer spurs about half the length of inner. Fore wing with the apex somewhat produced and the outer margin oblique; veins 3, 4, 5 from angle of cell; 7 approximated to 8, 9 for about one-third length, 10 also approximated to 8, 9. Hind wing with the cell about half the length of wing; veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

4790. **Heterocnephes lymphatalis**, *Swinh. P. Z. S.* 1889, p. 420, pl. 44, fig. 7.

Varies from black-brown to bright rufous; frons with lateral white lines; palpi below, pectus, and legs whitish, the tibiæ marked with black. Fore wing with large golden-yellow black-edged medial patch from costa not quite reaching the inner margin, with the dark discocellular line on it; a pale subcostal spot towards apex, with black speck on its outer side. Hind wing with large white black-edged postmedial patch, its outer edge indented, and terminating in a point below. Underside greyish.

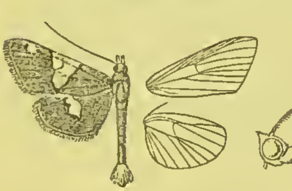

Fig. 161.
*Heterocnephes lymphatalis*, ♂. ½.

*Hab.* Khásis; Sibságar; Nágas; Burma; Perak; Pulo Laut; Java. *Exp.* 28 millim.

4791. **Heterocnephes lubricosa**, *Warr. A. M. N. H.* (6) xvii, p. 136.

♀. Brown; head and thorax tinged with grey; abdomen ringed with white. Fore wing with white fascia on medial part of costa; a black spot in cell; both wings with discocellular lunule; the outer area white, irrorated and minutely striated with brown, the veins crossing it black and a black marginal line; a dark brown patch at apex of fore wing; cilia tipped with brown. Underside with the basal half of both wings and the inner area of hind wing suffused with white.

*Hab.* Khásis. *Exp.* 30 millim.

## Genus AGROTERA.

Agrotera, *Schrank, Fauna Boica*, ii, pt. 2, p. 163 (1798).
Nistra, *Wlk. Cat.* xvii, p. 488 (1859).
Sagariphora, *Meyr. Trans. Ent. Soc.* 1894, p. 460.

Type, *A. nemoralis*, Scop., from Europe.

*Range.* Palæarctic and Oriental Regions to New Guinea.

Palpi upturned and reaching vertex of head; the 2nd joint moderately scaled in front, the 3rd triangularly scaled and set on at an angle; maxillary palpi filiform; frons rounded; antennæ ciliated and annulated; tibiæ with the outer spurs two-thirds length of inner; abdomen long, with slight lateral tufts. Fore wing with veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with the cell about half the length of wing; the discocellulars angled; veins 3, 4 from angle; 5 from or from just above angle; 6, 7 shortly stalked, 7 anastomosing with 8.

SECT. I. Fore wing somewhat narrow, the apex produced.

4792. **Agrotera effertalis**, *Wlk. Cat.* xvii, p. 348; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 19; *C. & S.* no. 4279.

Head, thorax, and abdomen pale yellow, spotted with orange; palpi fuscous; fore legs banded with fuscous; wings with the basal area pale yellow, spotted with orange, and bounded by an obscure waved line ending at anal angle of hind wing; the outer area purplish fuscous; fore wing with a yellow discocellular lunule on an orange patch; a sinuous postmedial line retracted at vein 2 of fore wing to below end of cell and terminating at vein 2 of hind wing; the cilia yellow below apex and towards outer angle of fore wing and on anal half of hind wing.

*Hab.* Ceylon; Perak; Celebes. *Exp.* 24 millim.

4793. **Agrotera discinotata**, *Swinh. A. M. N. H.* (6) xiv, p. 207.
Agrotera griseola, *Warr. A. M. N. H.* (6) xvii, p. 139.

Differs from *basinotata* in having more orange-red markings on thorax and abdomen. Fore wing with the basal patch more prominently marked with red, its edge oblique; a more or less prominent dark-edged rufous discocellular lunule with orange line on it, and diffused dark marks beyond it between veins 5 and 2. Hind wing with no basal yellow patch; some diffused black markings, and a rufous speck beyond lower angle of cell.

The Bhután form has no diffused markings beyond lower angle of cell of either wing; the discocellular lunule of fore wing small; the cilia white at the excision below apex.

*Hab.* Bhután; Khásis. *Exp.* 22 millim.

4794. **Agrotera basinotata**, *Hmpsn. Ill. Het.* viii, p. 137, pl. 155, fig. 13.

Differs from *effertalis* in the head being rufous; the abdomen

purplish fuscous towards extremity. Fore wing with a dark subbasal patch on the costa; the line bounding the yellow area more regular; a small rufous discocellular mark instead of the yellow lunule; the postmedial line obscure.

*Hab.* Punjab; Bombay Presidency; Nilgiris; Ceylon; Burma. *Exp.* 16 millim.

SECT. II. Fore wing broader, the apex not produced.

A. (Sagariphora). *Hind tibiæ of male with tufts of long hair at extremity on inner and outer sides, the tarsus fringed with hair on outer side; hind wing with fringe of long hair on inner area below.*

4795. **Agrotera magnificalis**, *Hmpsn. Ill. Het.* ix, p. 173, pl. 174, fig. 17.

Sagariphora heliochlæna, *Meyr. Trans. Ent. Soc.* 1894, p. 461.

♀. Differs from *scissalis* in the head being rufous; the abdomen fuscous, slightly rufous towards base; the thorax and basal half of fore wing thickly irrorated with orange; the base of hind wing pale, with only slight traces of orange and of the oblique line at lower angle of cell; no white suffusion beyond the line except at costa of fore wing; the outer area and underside browner.

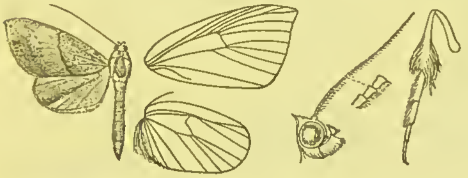

Fig. 162.—*Agrotera magnificalis*, ♂. ½.

♂ with the outer area of fore wing and the hind wing yellower.

*Hab.* Ceylon; Sumbawa. *Exp.* 32 millim.

B. *Hind legs and inner area of hind wing smoothly scaled.*

4796. **Agrotera scissalis**, *Wlk. Cat.* xxxiv, p. 1526.

Head, thorax, and abdomen pale yellow irrorated with orange, the last fuscous towards extremity; palpi, fore tibiæ, and distal tarsal joints fuscous; wings with the basal half pale yellow irrorated with orange, and bounded by a nearly straight black line ending at anal angle of hind wing, the area beyond it suffused with white to the postmedial series of black specks and oblique black striga from costa of fore wing, outer area purplish fuscous; a marginal series of black specks.

*Hab.* Sikhim; Khásis; Nágas; Ceylon; Rangoon; Java. *Exp.* 24 millim.

4797. **Agrotera cœlatalis**, *Wlk. Cat.* xvii, p. 488; *Moore, Lep. Ceyl.* iii, pl. 182, fig. 10; *C. & S.* no. 4365.

Head and thorax metallic purplish grey; abdomen ochreous.

Fore wing ochreous, with the costal area metallic purplish grey, the antemedial line arising from it, and the spots in cell and on discocellulars conjoined to it; the postmedial line purplish, excurved from costa to vein 2, then retracted, the area beyond it purplish except at outer angle. Hind wing ochreous, with a discocellular spot and postmedial line excurved below vein 5; the apical area and a patch near anal angle purplish.

*Hab.* Ceylon; S.E. Borneo; Sumbawa; Celebes. *Exp.* 20 millim.

4798. **Agrotera leucostola**, n. sp.

♂. Differs from *cœlatalis* in being white; the head, collar, and costal area of fore wing fuscous. Fore wing with the basal inner area white; the two black spots in cell more differentiated; both wings with the leaden-suffused patches on apical area present, but not those towards inner margin. Hind wing with some ochreous on the submarginal line; the black spot at anal angle instead of above it.

*Hab.* Sikhim (*Dudgeon*); Nágas (*Doherty*). *Exp.* 20 millim. Type in B. M.

4799. **Agrotera barcealis**, *Wlk. Cat.* xix, p. 942.
Zebronia retractalis, *Wlk. Cat.* xxxiv, p. 1350.
Zebronia indecisalis, *Wlk. Cat.* xxxiv, p. 1352.
Leucinodes opalina, *Moore, Lep. Ceyl.* iii, p. 289, pl. 179, fig. 10; *C. & S.* no. 4289.

Opalescent white. Fore wing with traces of antemedial line with suffused yellow patches on its outer side; a dark discocellular line with suffused yellow patch beyond it; a submarginal slightly waved line bent outwards between veins 5 and 2, then retracted, the area beyond it fulvous yellow with a grey and fuscous band on it. Hind wing with black speck at lower angle of cell, with some diffused yellow beyond it; an indistinct waved submarginal line bent outwards between veins 5 and 2 and with diffused yellow beyond it, then greyish white; a subapical fuscous patch and the margin yellow at apex.

*Hab.* Ceylon; Sumatra; Pulo Laut; Borneo; Mysol. *Exp.* 18 millim.

## Genus ÆTHOLIX.

Ætholix, *Led. Wien. ent. Mon.* 1863, p. 437.

Type, *Æ. flavibasalis*, Guen.

*Range.* India; Ceylon; Andamans; Borneo.

Palpi upturned and reaching vertex of head, the 2nd joint moderately scaled, the 3rd with a short triangular tuft in front; maxillary palpi filiform; frons rounded; antennæ slightly longer than the fore wing and ciliated; tibiæ with the outer spurs about two-thirds length of inner; thorax with ridges of large flattened scales on underside; abdomen rather long, with lateral tufts. Fore

wing narrow, the apex produced and the outer margin oblique; veins 3, 4, 5 from angle of cell; 7 curved and approximated to 8, 9, to which 10 also is approximated. Hind wing with the cell short; the discocellulars straight; veins 3, 4 from angle and approximated for a short distance; 5 from just above angle; 6, 7 from upper angle, 7 anastomosing with 8; the costal nervure and costa much arched at middle.

4800. **Ætholix flavibasalis**, *Guen. Delt. & Pyr.* p. 193; *Led. Wien. ent. Mon.* 1863, pl. 17, fig. 6; *C. & S.* no. 4277.
*Ætholix cingalesa*, *Hmpsn. Ill. Het.* ix, p. 173, pl. 174, fig. 18.

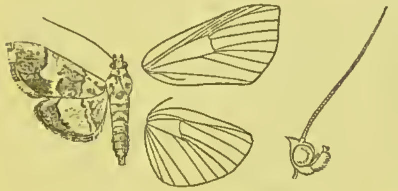

Fig. 163.—*Ætholix flavibasalis*, ♂. 3/2.

Palpi and frons black; vertex of head rufous; thorax and base of abdomen pale yellow with orange spots; abdomen purplish fuscous, the terminal segment banded with rufous, the anal tuft yellow. Fore wing with the base yellow, spotted with orange, and bounded by the sinuous antemedial line, which has some orange irroration beyond it; the medial area purplish fuscous; a discocellular black band with a yellow and orange mark on it; a postmedial sinuous line retracted at vein 2 to angle of cell, with a broad white band inside it above vein 2 and a narrow band outside its retracted portion; the outer area purplish fuscous, the cilia yellow below apex and towards outer angle. Hind wing with the base yellow spotted with orange; an oblique antemedial black line with spot on it at lower angle of cell, a little purplish fuscous suffusion inside it, and a broad white band beyond it bounded by a sinuous black line from costa to vein 2; the marginal area purplish fuscous.

In the Ceylon race *cingalesa* the white band of hind wing is much broader than in the typical form and hardly narrows towards inner margin.

*Hab.* Bombay; Ceylon; Andamans; Borneo. *Exp.* 22 millim.

4801. **Ætholix indecisalis**, *Warr. A. M. N. H.* (6) xvii, p. 148.

♀. Grey, almost wholly suffused with brown and fuscous; palpi and antennæ ringed with black. Fore wing with the basal inner area rufous, oblique slightly irregular antemedial and medial black lines, the former defined by ochreous on its inner side, the latter on its outer, and joined below cell by a curved dentate postmedial line, a hyaline spot in cell and speck below the cell; apical area suffused with ochreous; a marginal black line; cilia ochreous, dark at middle. Hind wing with some hyaline markings in end of cell and on disk; a curved medial black line and ill-defined irregular postmedial line; a marginal black line.

*Hab.* Khásis. *Exp.* 16 millim.

## Genus PAGYDA.

Pagyda, *Wlk. Cat.* xvii, p. 487 (1859).
Synclera, *Led. Wien. ent. Mon.* 1863, p. 444.

Type, *P. salvalis*, Wlk.

*Range.* Japan; Oriental region.

Palpi upturned and reaching vertex of head; the 2nd joint very broadly and quadrately scaled, the 3rd with a long pointed tuft in front; maxillary palpi filiform; frons rounded; antennæ annulated with rings at the joints; tibiæ smoothly scaled, the spurs nearly equal, except the outer medial spur of hind tibiæ which is about half the length of the inner. Fore wing with veins 3, 4, 5 from angle of cell; 6 from well below upper angle; 7 widely separated from 8, 9; 10 approximated to 8, 9. Hind wing with the cell short; vein 3 from angle; 4, 5 approximated for a short distance or well separated; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. (*Pagyda*). Mid tibiæ of male dilated with a fold containing a tuft of long hair.

4802. **Pagyda auroralis**, *Moore, Lep. Atk.* p. 215, pl. 7, fig. 17; *C. & S.* no. 4319.
Pagyda rubricatalis, *Swinh. Trans. Ent. Soc.* 1890, p. 282.

Head, thorax, and abdomen orange and yellow; palpi with the 2nd joint ringed with fuscous; thorax striped with orange; abdomen ringed with white towards extremity. Fore wing pale, with basal, subbasal, antemedial, and medial oblique orange bands tinged with red towards inner margin; a postmedial inwardly oblique line terminating at vein 3; two submarginal orange bands. Hind wing suffused with blood-red; the costal area pale; the outer area yellowish; a pale discocellular spot and pale postmedial line, retracted along vein 2, then excurved again; a pale submarginal line dentate inwards on vein 2.

*Hab.* Sikhim; Khásis; Rangoon. *Exp.* 22 millim.

4803. **Pagyda salvalis**, *Walk. Cat.* xvii, p. 487; *Moore, Lep. Ceyl.* iii, pl. 182, fig. 6; *C. & S.* no. 4330.
Botys arbiter, *Butl. Ill. Het.* iii, p. 77, pl. 59, fig. 13.

Fig. 164.—*Pagyda salvalis*, ♂. 1/1.

Head orange; palpi with two black semicircles on 2nd joint; frons with a black-and-white lateral line; thorax greyish with orange stripes; abdomen greyish, the terminal half fulvous with black-and-white segmental rings and a broad white ring before the anal tuft; wings grey. Fore wing with the costa orange; an outwardly oblique subbasal orange line; slightly oblique antemedial and medial orange lines arising from black specks on the costa; an inwardly oblique postmedial

line arising from a black speck on the costa and terminating at vein 3; a submarginal fulvous-orange band curved inwards near costa. Hind wing with oblique ante- and postmedial orange lines terminating near anal angle; a submarginal band not reaching the costa; both wings with fine marginal dark lines; the cilia orange at base, grey at tips.

*Hab.* Japan; Sikhim; W. & S. India; Ceylon; Burma; Pulo Laut; Borneo. *Exp.* 22–26 millim.

4804. **Pagyda botydalis**, *Snell. Midd.-Sum.* iv, *Lep.* p. 69, pl. 5, fig. 9.
Pagyda aurantialis, *Hmpsn. Ill. Het.* ix, p. 169, pl. 173, fig. 17.

Orange-yellow; palpi orange and fuscous; throat white; abdomen ringed with white towards extremity. Fore wing with oblique subbasal deep orange line; nearly erect and almost straight antemedial and medial lines arising from black specks on the costa; a postmedial inwardly oblique line arising from a speck on the costa and terminating at vein 3; a somewhat obscure submarginal line, highly dentate from costa to vein 3, then incurved. Hind wing with antemedial, postmedial, and submarginal oblique lines ending near anal angle. Both wings with a fine marginal dark line; the cilia pale, with an orange line through them.

*Hab.* Sikhim; Khásis; Nágas; Ceylon; Pulo Laut; Sumatra. *Exp.* 22 millim.

4805. **Pagyda discolor**, *Swinh. A. M. N. H.* (6) xiv, p. 197.

♂. Differs from *salvalis* in the wings having the lines narrower; fore wing with the submarginal line fine and quite straight.

*Hab.* Khásis; Nágas; E. Pegu. *Exp.* 26 millim.

4806. **Pagyda lustralis**, *Snell. Trans. Ent. Soc.* 1890, p. 615.

♂. Bright orange-yellow; palpi white at base; abdomen with white dorsal spots on first and last segments, and black-and-white dorsal band on penultimate segment. Both wings with outwardly oblique orange antemedial line; an indistinct discocellular line; a postmedial line slightly outlined with silver, straight from costa to vein 2, then retracted to angle of cell and ending on hind wing at anal angle; a marginal orange band with a series of silver specks on it.

*Hab.* Sikhim; Khásis; Momeit, Burma. *Exp.* 24 millim.

4807. **Pagyda exalbalis**, n. sp.

♂. Pale yellow; palpi rufous; head, thorax, and abdomen slightly marked with rufous. Fore wing with the costal area tinged with rufous; a straight rufous antemedial line; a dark discocellular line; a diffused band from middle of costa to outer angle; the postmedial line nearly straight from costa to vein 2 then retracted to lower angle of cell; a curved rufous submarginal line with maculate white band beyond it except at apex.

Hind wing with oblique rufous line from costa before middle to near anal angle; a postmedial slightly sinuous line terminating on outer margin at vein 2; a dark rufous line just inside the margin enclosing a somewhat maculate marginal white band; both wings slightly speckled with rufous and with striæ on veins of outer area; the cilia yellow, with a fine rufous line through them.

*Hab.* Tenasserim (*Doherty*). *Exp.* 16 millim. Type in coll. Druce.

4808. **Pagyda fulvistriga**, *Swinh. A. M. N. H.* (6) xiv, p. 206.

Fulvous yellow; palpi with the tuft on 3rd joint white; abdomen with the terminal segment bright fulvous, with a black band. Fore wing with bright fulvous subbasal line; an oblique fulvous antemedial line becoming fuscous towards costa; a discocellular line; a fuscous postmedial line oblique from costa to vein 3, then recurved to angle of cell and straight to inner margin. Hind wing with fuscous line from lower angle of cell to anal angle, with some rufous inside it; a sinuous postmedial line from costa to vein 2; both wings with fine marginal dark line and line through the cilia, which are pale.

*Hab.* Khásis. *Exp.* 28 millim.

Sect. II. (*Synclera*). Mid tibiæ of male not dilated.

4809. **Pagyda traducalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 54; *Moore, Lep. Ceyl.* iii, pl. 182, fig. 9; *C. & S.* no. 4308.
Spilomela retinalis, *Led. Wien. ent. Mon.* 1857, p. 100.
Samea jarbusalis, *Wlk. Cat.* xvii, p. 352.
Glyphodes univocalis, *Wlk. Cat.* xvii, p. 499.
Zebronia cottalis, *Wlk. Cat.* xix, p. 964.

Head, thorax, and abdomen fulvous yellow with pale markings; the anal tuft often blackish; wings semihyaline white, the markings fulvous. Fore wing with two fulvous subbasal lines, the outer expanding into an annulus below costa; an oblique antemedial line followed by a band of conjoined annuli; a medial patch from costa to lower angle of cell with a discocellular yellow line on it, a sinuous line from its inner side to inner margin, and an oblique line from its outer side conjoined at inner margin to the sinuous postmedial line, which is dentate on vein 5; a marginal band broad towards apex and conjoined to the postmedial line on inner margin, with a series of irregular white spots, specks, and striæ on it. Hind wing with oblique medial line expanding into a discocellular annulus; a sinuous postmedial line expanding towards anal angle and sending a fork inwards towards lower angle of cell and another outwards to join the irregular marginal band, which encloses a series of irregular white spots and specks; a striga near anal angle.

*Hab.* S. America; S. Africa; Aden; Syria; Palestine; throughout India, Ceylon, and Burma. *Exp.* 22 millim.

4810. **Pagyda subtessellalis,** *Wlk. Cat.* xxxiv, p. 1406; *C. & S.* no. 4077.

Differs from *traducalis* in being yellow hyaline; fore wing with the conjoined lines forming an irregular postmedial patch on inner margin; the marginal band broader on apical area of each wing, hardly dentate on veins 6, 7 of fore wing; the white spots on marginal band larger in female than in male; hind wing with a fascia on inner area joining the medial line.

*Hab.* Sikhim; Karen Hills, Burma; Tenasserim. *Exp.*, ♂ 22, ♀ 28 millim.

4811. **Pagyda straminealis,** n. sp.

♂. Straw-colour; palpi with the 2nd joint black; thorax and abdomen slightly marked with fuscous. Fore wing with the basal half straw-colour, the outer half fuscous; subbasal and antemedial paired black lines with fulvous between them, the latter with its outer line not reaching inner margin but curving round to costa and enclosing a straw-coloured patch; a similar postmedial patch with a spot below its inner edge; a white submarginal line from costa to vein 6 continued as a series of specks curving inwards near inner margin; a series of white specks just inside the margin. Hind wing with straw-coloured basal patch followed by a highly curved irregular antemedial band, then an irregular broad medial straw-coloured band; outer area fuscous, with a fulvous spot beyond lower angle of cell; a submarginal series of white specks, becoming a sinuous line towards anal angle.

*Hab.* Sikhim (*Pilcher*). *Exp.* 18 millim. Type in B. M.

## Genus **ERCTA.**

Ercta, *Wlk. Cat.* xvii, p. 425 (1859).
Hydriris, *Meyr. Trans. Ent. Soc.* 1885, p. 443.
Spanista, *Led. Wien. ent. Mon.* 1863, p. 445 (præocc.).

Type, *E. hemialis*, Guen., from the W. Indies.

*Range.* The tropical and warmer temperate zones.

Palpi upturned and reaching vertex of head, the 2nd joint broadly scaled in front, the 3rd with short triangular tuft of scales in front; maxillary palpi extremely minute; frons rounded; antennæ long and annulated; tibiæ with the outer spurs about half the length of inner; abdomen of male long, with a trifid anal tuft. Fore wing with the costa arched towards apex, which is produced; the outer margin excurved at middle; veins 3, 4, 5 from close to angle of cell; 7 well separated from 8, 9, to which both 10 and 11 are closely approximated. Hind wing with the outer margin somewhat excurved at middle; veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. Mid tibiæ of male dilated with a fold containing a ridge of hair.

4812. **Ercta elutalis**, *Wlk. Cat.* xvii, p. 448; *C. & S.* no. 4367 (part.).
Pyralis aonisalis, *Wlk. Cat.* xix, p. 911.
Botys bornealis, *Feld. Reis. Nov.* pl. 135, fig. 27.
Spanista pretiosalis, *Snell. Tijd. v. Ent.* xxiii, p. 239, & xxvii, p. 47, pl. 4, figs. 9, 9 *a*.

♂. Head and thorax ochreous and rufous, variegated with black and a few purple-grey scales; abdomen reddish brown, with the base and anal tuft blackish. Fore wing with the basal area rufous, thickly irrorated with black and with patches of silvery scales; the medial area paler, with a silver patch in cell, two below it, and two on discocellulars; an oblique minutely waved postmedial black line with silvery outer edge and angled outwards on vein 2; the outer area rufous suffused with black; the costa and margin with pale and silvery markings. Hind wing with the base black; the medial area whitish, with black speck at lower angle of cell and some brown scales beyond it; a postmedial sinuous line with silvery outer edge; the outer area rufous, with blackish suffusion near apex and silvery marks on the margin.

Fig. 165.—*Ercta elutalis*, ♂. 1/1.

♀ with the medial area of fore wing paler, and no silvery marks below the cell.

*Hab.* Nilgiris; Ceylon; Borneo; Celebes. *Exp.* 24 millim.

SECT. II. Mid tibiæ of male with no dilation or fold.

4813. **Ercta ornatalis**, *Dup. Lép. France*, viii, pt. 2, p. 207, pl. 223, fig. 8; *C. & S.* no. 4367 (part.).
Nymphula saturnalis, *Treitschke, Schmett. Eur.* x. 3. 29.
Pyralis deciusalis, *Wlk. Cat.* xix, p. 905.
Cataclysta fraterna, *Butl. A. M. N. H.* (4) xvi, p. 415.

Differs from *elutalis* in the medial area of fore wing being usually as dark as the basal and outer area, which are less suffused with black; hind wing with the medial area sparsely clothed with hair and long spatulate scales; the postmedial line of fore wing nearly straight from costa to vein 3, then bent inwards, on hind wing more regularly curved.

*Hab.* S. Nearctic, Neotropical, and Ethiopian regions; S. Europe; the Oriental and Australian regions. *Exp.* 20–22 millim.

## Genus CNAPHALOCROCIS.

Cnaphalocrocis, *Led. Wien. ent. Mon.* 1863, p. 384.

Type, *C. medinalis*, Guen.

*Range.* Japan; the Oriental and Australian regions.

Palpi upturned, the 2nd joint broadly scaled in front, the 3rd with short triangular tuft; maxillary palpi filiform; frons flat and oblique; antennæ annulated; tibiæ with the outer spurs half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9; 10, 11 stalked: male with erect triangular tufts of hair on upperside from subcostal and median nervures at middle of cell, with a depression of the wing-membrane between them and a downwardly-directed postmedial tuft from costa. Hind wing with the cell short; veins 3, 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8 almost to apex.

4814. **Cnaphalocrocis medinalis**, *Guen. Delt. & Pyr.* p. 201; *C. & S.* no. 4118.

Botys rutilalis, *Wlk. Cat.* xviii, p. 665.
Botys iolealis, *Wlk. Cat.* xviii, p. 666.
Godara jolinalis, *Led. Wien. ent. Mon.* 1863, pl. 12, fig. 7.
Botys nurscialis, *Wlk. Cat.* xviii, p. 724.
Botys acerrimalis, *Wlk. Cat.* xxxiv, p. 1449.

Ochreous; the head and collar fuscous; palpi white below; abdomen ringed with fuscous and white towards extremity; the anal tuft black, striped with white. Fore wing with the costal and outer areas broadly fuscous; a slightly curved antemedial line; a discocellular line and straight oblique postmedial line. Hind wing with discocellular speck; an oblique postmedial line bent inwards to anal angle; the outer area fuscous, tapering to anal angle; a black marginal line and line through the cilia.

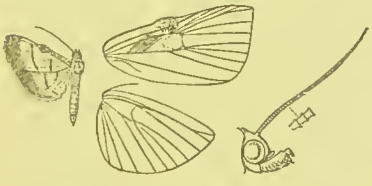

Fig. 166.
*Cnaphalocrocis medinalis*, ♂. 1/1.

In the Australian form *nurscialis* most specimens have the outer area ochreous between the dark submarginal and marginal lines.

*Hab.* Japan; throughout the Oriental and Australian regions. *Exp.* 20 millim.

## Genus MARASMIA.

Marasmia, *Led. Wien. ent. Mon.* 1863, p. 385.
Dolichosticha, *Meyr. Trans. Ent. Soc.* 1884, p. 304.
Epimima, *Meyr. Trans. Ent. Soc.* 1886, p. 235.
Lasiacme, *Warr. A. M. N. H.* (6) xviii, p. 176.

Type, *M. venilialis*, Wlk.

*Range.* The tropical zone.

Differs from *Cnaphalocrocis* in vein 10 of fore wing being very closely approximated to 8, 9 instead of stalked with 11; the secondary sexual characters different or absent.

SECT. I. (*Marasmia*). Fore wing of male with a very large tuft of long flattened leaden-coloured scales on upperside from below middle of costa, extending across the cell, and covering a vesicular fold in end of cell.

815. **Marasmia venilialis**, *Wlk. Cat.* xvii, p. 373; *C. & S.* no. 4119.
Botys ruralis, *Wlk. Cat.* xviii, p. 666; *C. & S.* no. 4108.
Botys marisalis, *Wlk. Cat.* xviii, p. 717.
Marasmia cicatricosa, *Led. Wien. ent. Mon.* 1863, p. 386, pl. 12, fig. 8.
Lasiacme mimica, *Warr. A. M. N. H.* (6) xviii, p. 177.

Ochreous; palpi black, white below; head and collar mostly fuscous; abdomen tinged with white towards extremity, two black spots on terminal segment, the anal tuft striped with white. Fore wing with the costal and outer areas broadly fuscous, the latter with curved inner edge often expanding on inner area; a curved antemedial dark line; a discocellular black lunule, in male hidden by the tuft of scales; a series of black specks on medial part of costa; a postmedial line nearly straight from costa to vein 2, where it sometimes touches the expanded part of the marginal fuscous area, then retracted to below angle of cell. Hind wing with oblique line from costa before middle to anal angle; a postmedial line from costa to vein 3; the marginal area fuscous, tapering to anal angle, expanded on vein 2, and nearly touching the postmedial line. Both wings with dark line through the cilia, which are white at tips.

Fig. 167.—*Marasmia venilialis*, ♂. $\frac{1}{1}$.

*Hab.* W. and S. Africa; throughout India, Ceylon, and Burma; Borneo; Australia; Solomons; Fiji. *Exp.* 16–20 millim.

4816. **Marasmia latimarginalis**, *Hmpsn. Ill. Het.* viii, p. 138, pl. 155, fig. 15.
Lasiacme pilosa, *Warr. A. M. N. H.* (6) xviii, p. 176.

Differs from *bilinealis* in the whole fore wing being purplish brown except a pale band beyond the postmedial line from vein 5 to inner margin and extending into its sinus on inner side. Hind wing with the postmedial line nearer the cell; the whole outer third of wing purplish brown, narrowing towards inner margin.

*Hab.* Sikhim; Khásis; Nilgiris. *Exp.* 22 millim.

SECT. II. (*Epimima*). Fore wing of male without the fold and tuft below costa.

A. *Maxillary palpi filiform; fore wing short.*

4817. **Marasmia trebiusalis**, *Wlk. Cat.* xviii, p. 718.
Epimima stereogona, *Meyr. Trans. Ent. Soc.* 1886, p. 236.
Asopia socialis, *Wlk. Cat.* xxxiv, p. 1306.

Differs from *venilialis* in the marginal fuscous area being much

broader, leaving a small ochreous space on fore wing beyond the postmedial line between veins 7 and 3, and a narrow band on hind wing.

*Hab.* W. Africa; Dharmsála; Ceylon; Borneo; Flores; Fiji. *Exp.* 18 millim.

4818. **Marasmia bilinealis**, *Hmpsn. Ill. Het.* viii, p. 139, pl. 155, fig. 25.
Dolichostica subauralis, *Warr. A. M. N. H.* (6) xviii, p. 175.

Differs from *venilialis* in the fore wing having no medial dark costal spots on a pale ground; the marginal dark area of both wings somewhat narrow and of nearly even width throughout.

*Hab.* Nilgiris; Ceylon; Borneo. *Exp.*, ♂ 16, ♀ 16–22 millim.

B. *Maxillary palpi triangularly dilated with scales; fore wing rather more produced at apex.*

4819. **Marasmia trapezalis**, *Guen. Delt. & Pyr.* p. 200.
Botys creonalis, *Wlk. Cat.* xviii, p. 579; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 10; *C. & S.* no. 4121.
Botys neoclesalis, *Wlk. Cat.* xviii, p. 635.
Botys suspicalis, *Wlk. Cat.* xviii, p. 667.
Botys convectalis, *Wlk. Cat.* xxxiv, p. 1411.
Cnaphalocrocis bifurcalis, *Snell. Tijd. v. Ent.* xxiii, p. 219, & xxvi, p. 136, pl. 8, fig. 5; *C. & S.* no. 4117.
Dolichosticha perinephes, *Meyr. Trans. Ent. Soc.* 1886, p. 236.

Pale ochreous suffused with fuscous brown; palpi blackish, white below; anal tuft striped with white. Fore wing with the costal and outer areas most suffused with brown; indistinct oblique subbasal and antemedial lines; two dark specks on discocellulars; a fine oblique postmedial line excurved between veins 6 and 2, and with a diffused curved line beyond it. Hind wing with antemedial and medial oblique lines almost meeting at anal angle; a postmedial line from costa to vein 2, sometimes almost connected with the medial line; the outer area suffused with brown. Both wings with dark marginal line and line through the cilia, which are pale.

*Hab.* Neotropical, Ethiopian, Oriental, and Australian regions. *Exp.* 22 millim.

4820. **Marasmia fusifascialis**, n. sp.

♂. Differs from *trapezalis* in the fore wing having a broad subcostal fuscous fascia from base through the cell to the postmedial line, which is straight from costa to vein 2, then much bent inwards; no submarginal line. Hind wing with no antemedial line; the postmedial line bent inwards at vein 2, and almost touching the discocellular speck; no submarginal line.

*Hab.* Ceylon (*Green*). *Exp.* 24 millim. Type in B. M.

## Genus RHIMPHALEA.

Rhimphalea, *Led. Wien. ent. Mon.* 1863, p. 410.

Type, *R. scélatalis*, Led., from Australia.

*Range.* Oriental region, except peninsular India and Ceylon.

Palpi upturned, the 2nd joint broadly fringed in front, the 3rd short with a small triangular tuft in front; maxillary palpi well developed and filiform; paired tufts of hair behind the eyes; frons flat and oblique; antennæ annulated and somewhat longer than the fore wing; legs long and slender, the outer spurs about half the length of inner; abdomen long, the claspers and anal tuft very largely developed. Fore wing with veins 3, 4, 5 well separated at origin; 7 curved and approximated to 8, 9 for a short distance, 10 also approximated to 8, 9. Hind wing with the cell about half the length of wing; veins 3, 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8.

4821. **Rhimphalea trogusalis**, *Wlk. Cat.* xviii, p. 711.
Pinacia ocularis, *Feld. Reis. Nov.* pl. 136, fig. 20.
Spilomela ommatalis, *Snell. Tijd. v. Ent.* xxiii, p. 235, & xxvii, pl. 4, fig. 5.
Botys megalopsalis, *C. & S.* no. 4065 (*nec Wlk.*).

Whitish; palpi black, the 3rd joint white; frons black at sides; thorax striped with black-brown; abdomen with lateral black-brown spots towards base and dorsal bands towards extremity. Fore wing with the costal area fuscous; an ill-defined antemedial diffused line broken up into streaks below the cell; a large purplish-black spot in end of cell with white pupil; veins 2 to 7 streaked with brown to near the postmedial band, which is slightly curved, expands towards costa, and develops into a patch between vein 2 and inner margin, where it has a spot inside it; an almost marginal band from just below the costa tapering to vein 2. Hind wing with the median nervure at end of cell and discocellulars brown; the veins beyond lower angle slightly streaked with brown; a slightly waved postmedial band, widest towards costa, and slightly excurved between veins 5 and 2; the apex and margin towards anal angle fuscous. Underside of fore wing with pale yellow suffusion round the ocellus.

Fig. 168.—*Rhimphalea trogusalis*, ♂. 1/1.

*Hab.* Dharmsála; Sikhim; Khásis; Andamans; Manilla; Borneo; Celebes. *Exp.* 30 millim.

4822. **Rhimphalea ochalis**, *Wlk. Cat.* xviii, p. 711.
Spilomela strabonalis, *Snell. Tijd. v. Ent.* xxiii, p. 236.

Differs from *trogusalis* in the whole head, thorax, and abdomen

being fuscous brown; the wings tinged with brown. Fore wing with the antemedial line better defined and expanding into a patch above inner margin; the spot in end of cell brownish; the veins and interspaces beyond the cell all streaked with brown; the marginal band straighter and widest at middle. Hind wing with the veins more strongly streaked with brown. Underside of fore wing with the yellow suffusion round the ocellus deeper and more prominent.

*Hab.* Khásis; Java. *Exp.* 26 millim.

## Genus SYNGAMIA.

Syngamia, *Guen. Delt. & Pyr.* p. 187 (1854).
Æthaloessa, *Led. Wien. ent. Mon.* 1863, p. 435.
Bacotoma, *Moore, Lep. Ceyl.* iii, p. 282 (1885).
Orphanostigma, *Warr. A. M. N. H.* (6) vi, p. 478 (1890).

Type, *S. florella*, Cram., from the Neotropical region.

*Range.* The tropical and subtropical zones.

Differs from *Bocchoris* in the antennæ being annulated with rings at the joints; the frons rounded; palpi more broadly fringed in front.

4823. **Syngamia abruptalis**, *Wlk. Cat.* xvii, p. 371; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 14; *C. & S.* no. 4341.
Asopia dotatalis, *Wlk. Cat.* xxxiv, p. 1305.
Asopia suffectalis, *Wlk. Cat.* xxxiv, p. 1307.

Bright fulvous; frons with lateral white lines; palpi below, pectus, legs, and abdomen below white. Fore wing with curved antemedial fuscous line; a discocellular lunule; the postmedial line very slightly excurved between veins 5 and 2, then retracted to origin of vein 2 and excurved again. Hind wing with oblique antemedial fuscous line; a sinuous postmedial line from costa to vein 2. Both wings with black marginal line and line through the cilia, which are grey.

*Hab.* W. Africa; throughout India, Ceylon, and Burma; Andamans; Java; Australia; Fiji. *Exp.* 18 millim.

4824. **Syngamia latimarginalis**, *Wlk. Cat.* xvii, p. 370; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 16; *C. & S.* no. 4346.
Botys jucundalis, *Led. Wien. ent. Mon.* 1863, p. 463, pl. 8, fig. 17; *C. & S.* no. 4062.
Orphanostigma versicolor, *Warr. A. M. N. H.* (6) xviii, p. 175.

Differs from *abruptalis* in the fore legs being banded with black; abdomen ringed with black, the anal tuft with paired white lines and a black line between them. Fore wing varying from orange to pale yellow; the whole outer area of both wings beyond the postmedial line purplish fuscous except a patch in the sinus of the line below vein 2 of fore wing; the antemedial line of hind wing terminating near anal angle; a black spot just above anal angle. Many of the yellow specimens have most of the basal area of both

wings and the medial area of fore wing suffused with purplish fuscous.

*Hab.* W. and E. tropical Africa; throughout India, Ceylon, and Burma. *Exp.* 20–22 millim.

4825. **Syngamia floridalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 60.
Glyphodes calidalis, *Guen. Delt. & Pyr.* p. 294; *C. & S.* no. 4180.
Syngamia octavialis, *Wlk. Cat.* xvii, p. 334; *C. & S.* no. 4237.
Syngamia merionealis, *Wlk. Cat.* xvii, p. 334.
Syngamia tiphalis, *Wlk. Cat.* xvii, p. 335.
Hyalea fulvidalis, *Wallengr. Wien. ent. Mon.* 1860, p. 174.
Botys witialis, *Feld. Reis. Nov.* pl. 135, fig. 8.

Fiery red and yellow; palpi purplish black above; collar, first and last abdominal segments, and anal tuft purplish black. Fore wing with the base of costa purplish black; a straight antemedial line; the outer half of wing purplish black, with a large postmedial oval yellow patch extending from costa to vein 2. Hind wing with the base fiery red; a black discocellular speck; the area beyond the cell yellow; the outer area purplish black, its inner edge excurved from costa to vein 2, then bent inwards; cilia of both wings white, slightly fuscous at middle.

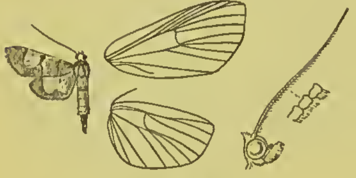

Fig. 169.
*Syngamia floridalis*, ♂. $\frac{1}{1}$.

*Hab.* S. Africa; throughout India, Ceylon, and Burma; the Malayan subregion; New Hebrides; Duke of York Island; Tahiti. *Exp.* 18 millim.

4826. **Syngamia vibiusalis**, *Wlk. Cat.* xviii, p. 634.

♀. Pale yellow; the palpi fuscous, white below; head and thorax suffused with fuscous; abdomen with black line before the anal tuft, which is tipped with black. Fore wing with slight fuscous suffusion on basal costal area; a curved antemedial line; a discocellular lunule; the postmedial line excurved between veins 5 and 2, then retracted to origin of vein 2 and excurved again, the area beyond it purplish fuscous. Hind wing with oblique antemedial line; a sinuous submarginal line with the area beyond it purplish fuscous; cilia whitish, fuscous at base.

*Hab.* Congo; Nilgiris; Rangoon. *Exp.* 18 millim.

4827. **Syngamia falsidicalis**, *Wlk. Cat.* xvii, p. 370; *C. & S.* no. 4343.

Fuscous brown; palpi white below; frons with lateral white lines; abdomen slightly ringed with white, the anal tuft marked with fulvous, black, and white. Fore wing with curved black antemedial line; a discocellular yellow lunule; the postmedial line nearly straight from costa to vein 2, then retracted to origin of vein 2 and excurved again, a large yellow patch on its inner side

from below costa to vein 2 and a small spot on its outer side at costa; cilia whitish towards outer angle. Hind wing with oblique sinuous ante- and postmedial lines almost meeting near anal angle, the area between them yellow except towards costa; the cilia whitish towards anal angle.

*Hab.* N.W. Himalayas; Khásis; Nilgiris; Ceylon. *Exp.* 22 millim.

4828. **Syngamia abjungalis**, *Wlk. Cat.* xviii, p. 670; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 8; *C. & S.* no. 4111.

Head and thorax purplish fuscous; palpi white below; frons with medial and lateral white lines; abdomen ochreous with the base white, the anal tuft fulvous and black with white stripes; legs white, the fore tibiæ banded with black. Fore wing fuscous shot with brilliant purple; the costa ochreous; an oblique ochreous area from beyond lower angle of cell to middle of inner margin; a curved antemedial black line; a discocellular band; a line from lower angle of cell ending in a spot on inner margin; an oblique sinuous postmedial line arising from a spot on costa and ending at vein 2, two small dentate ochreous spots beyond it between veins 6 and 8, and one above vein 2. Hind wing ochreous; the base dark; a discocellular line; a line from below lower angle of cell to anal angle, where there is a spot beyond it; a postmedial line from costa to vein 3; the outer area tinged with cupreous brown, the apical area darkest; a dark marginal line and line through the cilia, which are grey at tips.

*Hab.* Ceylon. *Exp.* 26 millim.

4829. **Syngamia latifusalis**, n. sp.

♂. Head and thorax purplish fuscous; palpi white below; abdomen orange, the subterminal segment and base of terminal spotted black and white. Fore wing with the costal and outer areas broadly purplish fuscous, leaving a triangular ochreous patch on medial inner area; a slightly curved black antemedial line; a discocellular lunule; a postmedial line outlined with ochreous, arising from a black spot on costa and slightly retracted at vein 2. Hind wing ochreous with cell-spot; the postmedial line slightly retracted at vein 2, then oblique to anal angle, the area beyond it suffused with fuscous; both wings with pale line at base of cilia.

*Hab.* Tenasserim (*Doherty*). *Exp.* 28 millim. Type in coll. Druce.

## Genus BOCCHORIS.

Bocchoris, *Moore, Lep. Ceyl.* iii, p. 271 (1886).
Chabula, *Moore, Lep. Ceyl.* iii, p. 317.

Type, *B. inspersalis*, Zell.

*Range.* The tropical and subtropical zones.

Palpi upturned and reaching vertex of head, the 2nd joint

moderately scaled in front, the 3rd with a short triangular tuft; maxillary palpi filiform; frons flat and oblique; antennæ with the shaft smooth; tibiæ with the outer spurs hardly half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

Sect. I. Antennæ of male serrate.

4830. **Bocchoris rotundalis**, *Hmpsn. Ill. Het.* ix, p. 169, pl. 172, fig. 23.

Head, thorax, and abdomen marked with brown and white. Fore wing with the basal area brown, with two ill-defined sinuous white lines on it; a large irregular medial white patch enclosing a discocellular speck; the postmedial area brown, with some irregular white marks on it and a white patch in the curve of the postmedial line, which is followed by an irregular white band; the marginal area brown, with an irregular series of dentate white marks. Hind wing white, with minutely waved oblique medial and postmedial lines; the margin brown, with a minutely dentate white line on it; cilia white, with a series of brown specks on fore wing, a line on hind wing.

*Hab.* Ganjam; Ceylon. *Exp.* 18–22 millim.

Sect. II. Antennæ of male ciliated.

A. *Neither wing with the outer margin angled at vein* 3.

4831. **Bocchoris danalis**, *Hmpsn. Ill. Het.* ix, p. 169, pl. 172, fig. 25.

♂. Fawn-colour marked with white. Fore wing with white basal spot; a large pale diffused antemedial patch; a white spot in end of cell; a postmedial series of streaks between the veins and a series of spots on the margin, the spot between veins 4 and 5 minute. Hind wing white, with fawn-coloured marginal line.

*Hab.* Ceylon. *Exp.* 20 millim.

4832. **Bocchoris trivitralis**, *Swinh. A. M. N. H.* (6) xvi, p. 302.
Synclera fenestralis, *Warr. A. M. N. H.* (6) xvii, p. 105.

♂. Yellowish white marked with dark rufous. Fore wing with some rufous marks on base of costa; two ill-defined dentate subbasal lines; a curved line followed by a straight antemedial line; a large hyaline patch in and below middle of cell, and others beyond discocellulars and lower angle of cell; the medial costal area and spaces between the hyaline patches dark rufous; the hyaline patches connected with inner margin by irregular markings; waved postmedial and submarginal lines joining towards inner margin; the apex rufous; cilia pale, fuscous at middle. Hind wing with curved

rufous medial band with yellow spot on it at costa, and joined to outer margin by a fascia on vein 2; two postmedial lines, the outer incurved at vein 6; some submarginal specks; the margin rufous; the cilia pale black at base.

*Hab.* Khásis. *Exp.* 20 millim.

4833. **Bocchoris incisalis**, *Snell. Tijd. v. Ent.* xxiii, p. 215, & xxvi, p. 132, pl. 8, fig. 1.

Hydrocampa tenera, *Butl. P. Z. S.* 1883, p. 167; *C. & S.* no. 4432.

Head, thorax, and abdomen fuscous brown and white. Fore wing with the basal area white, with slight fuscous markings and three curved antemedial dark lines, the outer line followed by a white band from costa to below median nervure; the outer area fuscous, with a large postmedial trifoliate white mark, with a white mark between it and inner margin and with the postmedial line excurved round it and incurved below it; a white band from costa to vein 6 beyond the postmedial line. Hind wing white, with medial fuscous band enclosing a white discocellular spot; a postmedial line; the outer area fuscous, narrowing to anal angle and usually with a white line on it; a white mark on middle of outer area, and two black specks towards anal angle; cilia of both wings white, with a brown line through them.

*Hab.* Tropical America; W. Africa; Karáchi; Poona; Ceylon; Celebes. *Exp.* 16–18 millim.

4834. **Bocchoris onychinalis**, *Guen. Delt. & Pyr.* p. 205, pl. 6, fig. 9; *C. & S.* no. 4257.

Zebronia braurealis, *Wlk. Cat.* xix, p. 971; *C. & S.* no. 4303.

Lepyrodes astomalis, *Feld. Reis. Nov.* pl. 135, fig. 22.

White; the head, thorax, and abdomen reticulated with black; the anal tuft black. Fore wing with irregular subbasal brown line; two antemedial brown bands, with irregularly waved edges and white middles; a very irregular medial band enclosing two conjoined white annuli, narrowing to inner margin, sending spurs towards the antemedial band and to join the curved postmedial band, which has a white middle and is conjoined from vein 5 to inner margin to the outer brown area, which has submarginal series of white specks and streaks on it. Hind wing with brown medial line enclosing a discocellular speck; an irregularly sinuous postmedial line conjoined from vein 5 to anal angle to the marginal brown band, which has series of white specks and streaks on it; cilia of both wings variegated brown and white.

Fig. 170.—*Bocchoris onychinalis*, ♂. $\frac{3}{2}$.

*Hab.* W. Africa; Aden; throughout India, Ceylon, and Burma; Borneo; Australia. *Exp.* 22 millim.

4835. **Bocchoris acamasalis**, *Wlk. Cat.* xix, p. 970; *C. & S.* no. 4328.
Zebronia perspicualis, *Walk. Cat.* xxxiv, p. 1347.
Botys flexissimalis, *Wlk. Cat.* xxxiv, p. 1426.
Heterocnephes strangulalis, *Snell. Tijd. v. Ent.* xxiii, p. 224, & xxvii, pl. 3, fig. 1.

Fuscous with a purplish tinge and white markings; palpi white banded with black. Fore wing with the basal area white; an oblique subbasal black line, followed by a fuscous band; an oblique antemedial black line; a black-edged fuscous medial band with a pale concentric mark above inner margin; a black-edged pale reniform postmedial patch extending from costa to vein 2, followed by a somewhat sinuous white line expanding into a spot at costa. Hind wing pale at base, with oblique black line from base of costa to near anal angle, and sometimes interrupted; a discocellular black band often continued along vein 2 and conjoined to the dark outer area; both wings usually with pale patch on outer area towards inner margin; a black marginal line and line through the cilia.

*Hab.* Throughout India, Ceylon, and Burma; Java; Celebes. *Exp.* 24–26 millim.

4836. **Bocchoris telphusalis**, *Wlk. Cat.* xix, p. 974.
Heterocnephes reniferalis, *Snell. Trans. Ent. Soc.* 1890, p. 616.

Differs from *acamasalis* in the patch before the postmedial line of fore wing being more distinctly reniform and not reaching the costa. Hind wing with the postmedial line conjoined to the discocellular mark at lower angle of cell; the pale patches beyond the postmedial line towards inner margin of fore wing and on middle of inner area of hind wing almost obsolete.

*Hab.* Sikhim; Khásis; Margharita, Assam; Tenasserim; Borneo. *Exp.* 22 millim.

4837. **Bocchoris sphenocosma**, *Meyr. Trans. Ent. Soc.* 1894, p. 456.
Chabula vedrualis, *Swinh. A. M. N. H.* (6) xiv, p. 197.

Differs from *acamasalis* in being more purple. Fore wing with the black-edged white antemedial band narrower; the black-edged white postmedial patch on costa triangular, a pale line outlining the black edge of the antemedial band, then curving round and running inside the postmedial patch. Hind wing with the whole basal area fuscous, leaving triangular white marks from costa across the cell and beyond it; the postmedial line of both wings narrow and obsolescent, without pale patches beyond it.

*Hab.* Khásis; Borneo; Pulo Laut. *Exp.* 22 millim.

4838. **Bocchoris inspersalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 33; *C. & S.* no. 4278.
Desmia afflictalis, *Guen. Delt. & Pyr.* p. 190, pl. 5, fig. 4.
Ædiodes bootanalis, *Wlk. Cat.* xxxiv, p. 1298.

Black; palpi white below; frons with lateral white lines; a tuft of pale yellow hair behind each eye; metathorax with a white

band; abdomen ringed with white. Fore wing with white spot below middle of cell; a large white spot in end of cell extending below it; a speck below vein 2; a postmedial speck on costa and spot below it extending from the subcostals to vein 5; a submarginal white speck on vein 5; the cilia white at apex and outer angle. Hind wing with white patch on basal area; a white band from lower angle of cell to near anal angle; a large spot beyond the cell; a submarginal speck on vein 4; the cilia white at apex and anal angle.

*Hab.* Throughout Africa; Aden; Japan; China; Bhután; Nilgiris; Ceylon; Burma; Java. *Exp.* 20 millim.

4839. **Bocchoris ciliata**, *Swinh. A. M. N. H.* (6) xiv, p. 206.

♀. Differs from *inspersalis* in the palpi being white at end of 2nd and 3rd joints only; abdomen with white bands on 2nd and subterminal segments. Fore wing with large medial white spot extending from just below costa to vein 1, and discal patch from subcostals to vein 2; cilia white below apex and at outer angle. Hind wing with large antemedial white patch from cell to inner margin and discal patch between veins 6 and 2.

*Hab.* Khásis. *Exp.* 18 millim.

4840. **Bocchoris trimaculalis**, *Snell. Tijd. v. Ent.* xxiii, p. 232.

Differs from *ciliata* in the hind wing being without the discal white patch.

*Hab.* Khásis; Rangoon; Celebes. *Exp.* 18 millim.

4841. **Bocchoris artificalis**, *Led. Wien. ent. Mon.* 1863, p. 463, pl. 8, fig. 16.

Ædiodes inscitalis, *Wlk. Cat.* xxxiv, p. 1297; *C. & S.* no. 4247.
Ædiodes abstrusalis, *Moore, Lep. Atk.* p. 207; *C. & S.* no. 4239.

♂. Fuscous brown with a slight purplish tinge; palpi white below; abdomen with the first segment white, the others tinged with white. Fore wing with dark-edged hyaline spot in cell, with a sinuous hyaline line from it to inner margin traversed by the antemedial line; a hyaline spot in end of cell and another below origin of vein 2; the postmedial line with a trifid hyaline mark beyond it from costa to vein 5 and a slight lunule inside it, highly bent outwards between veins 5 and 2, and with hyaline specks beyond it, then retracted to origin of vein 2 and running with hyaline specks beyond it to inner margin. Hind wing with the basal half hyaline white; a sinuous medial line with diffused fuscous on its inner edge; the postmedial line bent outwards between veins 5 and 2, with conjoined hyaline white spots beyond it from veins 7 to 2; the outer area purplish fuscous. Both wings with an obscure marginal series of dark specks; the cilia chequered fuscous and white.

♀ with no white band at base of abdomen; the hyaline markings of fore wing smaller.

In the form *abstrusalis* the hyaline markings are wholly suffused with fuscous and hardly traceable.

*Hab.* Dharmsála; Calcutta. *Exp.* 22 millim.

4842. **Bocchoris clathralis**, *Swinh. A. M. N. H.* (6) xiv, p. 200.

♂. Pale ochreous irrorated with fuscous; antennæ ringed with black; abdomen with the third segment black above and with lateral specks towards extremity. Fore wing with traces of curved subbasal line and of sinuous antemedial line oblique from costa to median nervure; a large discocellular lunule filled in with grey; a postmedial annulate line retracted along vein 2 to below end of cell; the area beyond it, except costal area, black shot with purple, leaving a series of pale lunules beyond the postmedial line; cilia fuscous in places and with a series of blackish spots. Hind wing with dark-edged discocellular lunule; traces of a postmedial maculate sinuous line retracted along vein 2 to below angle of cell; an obscure sinuous submarginal line; the apical area purplish fuscous; a series of dark specks on the cilia.

*Hab.* Khásis; Tenasserim. *Exp.* 26 millim.

4843. **Bocchoris adipalis**, *Led. Wien. ent. Mon.* 1863, p. 475, pl. 11, fig. 16.
Samea cuprinalis, *Moore, P. Z. S.* 1877, p. 615; *C. & S.* no. 4243.
Mimorista marginalis, *Warr. A. M. N. H.* (6) xviii, p. 114.

Yellowish white or ochreous; the head and thorax suffused with brown. Fore wing with the costal area brown; an almost straight antemedial line, sometimes with brown suffusion beyond it; an annulus in cell and larger discocellular annulus, both conjoined to the brown costal area; a dark spot below middle of cell, sometimes developed into a claviform mark; the postmedial sinuous line bent outwards between veins 5 and 2, then retracted to the cell, and with ochreous patches beyond it towards costa and inner margin and specks beyond the excurved portion; the outer area brown. Hind wing with discocellular annulus; a postmedial minutely waved line bent outwards between veins 5 and 2, followed by an ochreous band before the marginal brown area.

*Hab.* Sikhim; Khásis; Ceylon; Mergui; Andamans; Malacca; Amboina. *Exp.* 24–26 millim.

4844. **Bocchoris aptalis**, *Wlk. Cat.* xxxiv, p. 1425.
Samea usitata, *Butl. Ill. Het.* iii, p. 74, pl. 59, fig. 3.

Differs from *adipalis* in being yellower; the spot in cell of fore wing and discocellular spots of each wing filled in with brown; the marginal brown area more extensive and only leaving small ochreous spots towards costa and inner margin of each wing, and on fore wing conjoined by a streak across the postmedial line to the discocellular mark.

*Hab.* Japan; Khásis; Mysol. *Exp.* 24 millim.

B. *Both wings with the apex somewhat produced ; the outer margin excised to vein 3, where it is angled.*

4845. **Bocchoris invertalis**, *Snell. Tijd. v. Ent.* xx, p. 78, pl. 6, fig. 4.

♂. Brown, suffused with purplish grey; head, collar, and abdomen red-brown; anal tuft black. Fore wing with the costa ochreous; a black speck below middle of cell; a large hyaline yellow patch, quadrate in end of cell, irregular below it, and continued as an oblique line from vein 1 to inner margin; a black-edged discocellular lunule filled in with rufous; a large hyaline yellow patch on costa before apex continued between veins 5 and 2 as a sinuous line. Hind wing with indistinct hyaline yellow ante- and postmedial lines, the latter bent outwards and minutely dentate between veins 5 and 2, then retracted and developed into a patch below end of cell and continued as a sinuous line to anal angle.

*Hab.* Tenasserim Valley; Sumatra; Borneo. *Exp.* 30 millim.

## Genus ULOPEZA.

Ulopeza, *Zell. K. Vet.-Ak. Handl.* 1852, p. 58.
Pseudanalthes, *Warr. A. M. N. H.* (6) vi, p. 477 (1890).

Type, *U. conigeralis*, Zell., from Africa.

*Range.* Africa; N.E. and S. India; Ceylon; Malayan subregion; Celebes.

Palpi upturned, the 2nd joint reaching vertex of head and slightly fringed in front, the 3rd well developed and acuminate, with a short triangular tuft in front; maxillary palpi filiform; frons rounded; antennæ of male ciliated, the basal joint dilated and toothed, the shaft excised, then clothed with rough black scales for a short distance; tibiæ with the outer spurs half the length of inner; mid tibiæ clothed with spinous hair. Fore wing with the apex somewhat produced and the outer margin oblique; veins 3, 4, 5 from angle of cell; 7 approximated to 8, 9 for a short distance; 10 also approximated to 8, 9. Hind wing with veins 3, 4, 5 from angle of cell, which is rather short; 6, 7 from upper angle or shortly stalked, 7 anastomosing slightly with 8.

The male of the typical species has the fore coxæ and femora, the hind tibiæ and spurs fringed with hair, thorax with ridges of large scales below.

SECT. II. (*Pseudanalthes*). Male with the thorax and legs normal.

4846. **Ulopeza idyalis**, *Wlk. Cat.* xix, p. 996; *Moore, Lep. Ceyl.* iii, pl. 183, fig. 5; *C. & S.* no. 4116.
Botys disjunctalis, *Wlk. Cat.* xxxiv, p. 1408; *C. & S.* no. 4115.

♂. Fuscous brown; head and collar pale yellow; basal segment of abdomen whitish. Fore wing with a large pale yellow patch, with the discocellular brown lunule on it extending from middle

of costa to median nervule and beyond the cell down to vein 2, the veins crossing it orange; an apical costal orange streak with two small, usually conjoined yellow spots below it before the apex; traces of antemedial and medial dark lines. Hind wing with the costal area usually pale; traces of a postmedial line beyond lower angle of cell.

Fig. 171.—*Ulopeza idyalis*, ♂. ½.

♀ pale yellow. Fore wing with the veins orange; a fulvous streak on base of costa; a sinuous antemedial fulvous line; a speck in cell and discocellular lunule; the postmedial line minutely waved, nearly straight from costa to vein 2, then retracted to lower angle of cell; some fulvous on medial outer area. Hind wing with the postmedial line represented by a curved portion beyond lower angle of cell and a spot on origin of vein 2; both wings with the margin and cilia brown.

*Hab.* Sikhim; Khásis; Nágas; Bombay; Nilgiris; Ceylon; Pulo Laut; Celebes. *Exp.* 26 millim.

4847. **Ulopeza semivialis**, *Moore, Lep. Atk.* p. 209, pl. 7, fig. 6; *C. & S.* no. 4300.

♂. Fuscous brown with a purplish tinge; frons ochreous; palpi below and pectus white. Fore wing with ochreous postmedial patch from costa to vein 5, yellower at costa and its outer edge somewhat tridentate; abdomen whitish below.

♀. Fore wing with the postmedial patch large, lunulate, and extending from costa to vein 3.

*Hab.* Sikhim. *Exp.*, ♂ 26, ♀ 40 millim.

## Genus NOSOPHORA.

Nosophora, *Led. Wien. ent. Mon.* 1863, p. 407.
Analtes, *Led. Wien. ent. Mon.* 1863, p. 407.
Eidama, *Wlk. Cat.* xxxiv, p. 1374 (1865).

Type, *N. dispilalis*, Hmpsn.=*chironalis*, Led. (nec Wlk.), from Borneo and Amboina.

*Range.* N.E. India; Ceylon; Burma; Malayan subregion to New Guinea.

Palpi upturned, the 2nd and 3rd joints recurved over vertex of head, the 1st and 2nd joints in female slightly fringed with hair in front, the 3rd with a small triangular tuft in front; in male the 2nd joint is fringed with long coarse hair curled upwards and inwards; maxillary palpi filiform; frons rounded; antennæ of male with long cilia, the basal joint dilated with scales; the vertex of head hollowed out in male; the patagia with tufts of long hair extending beyond the metathorax; thorax below with ridges of large curved scales near the coxæ, a tuft of long hair from origin of fore wing; tibiæ with the outer spurs half the length of

inner, mid tibiæ clothed with spinous hair. Fore wing with veins 3, 4, 5 from angle of cell; 7 approximated to 8, 9 for one-third length; 10 also approximated to 8, 9. Hind wing with veins 3, 4, 5 usually from angle of cell; 6, 7 usually from upper angle, 7 slightly anastomosing with 8.

SECT. I. Hind wing of male with a ridge of hair on underside below subcostal nervure from near base to beyond the cell; veins 4 and 5 given off at a point well above lower angle; 6, 7 stalked.

A. *Male with the whole hind tibia, the inner terminal spur, and the tarsal joints fringed with long hair.*

4848. **Nosophora chironalis**, *Wlk. Cat.* xviii, p. 683.
Nagia incomitata, *Swinh. A. M. N. H.* (6) xiv, p. 205.

Black-brown; underside of palpi, thorax, and abdomen whitish. Fore wing with hyaline white discocellular lunule expanding into a patch beyond lower angle of cell and forming a comet-shaped mark. Hind wing with hyaline white nearly round spot beyond lower angle of cell.

*Hab.* Khásis; Borneo. *Exp.*, ♂ 34, ♀ 30 millim.

B. *Male with the hind tibia, the inner spur, and the first two tarsal joints fringed with hair.*

4849. **Nosophora conjunctalis**, *Wlk. Cat.* xxxiv, p. 1483.
Nosophora ochnodes, *Meyr. Pr. Linn. Soc. N. S. W.* 1886, p. 255.

Fuscous; pectus and legs whitish; fore tibiæ banded with fuscous. Fore wing with more or less distinct pale speck in end of cell; a large white reniform mark beyond the cell from subcostals to vein 2, with slight fulvous streak above it below the costa.

*Hab.* Nágas; Tenasserim; Borneo; Amboina; Flores; Australia. *Exp.* 25 millim.

C. *Male with slight tufts of hair at end of hind tibiæ only.*

4850. **Nosophora triguttalis**, *Warr. A. M. N. H.* (6) xviii, p. 173.

♂. Black with very slight purple tinge; frons, vertex of head, patagia, and base of abdomen marked with white; tarsi and abdomen below whitish. Fore wing with white spots near base and in cell; a large white spot beyond cell from subcostals to vein 2, expanding below vein 4. Hind wing with large round white spot beyond cell.

*Hab.* Khásis; Tenasserim. *Exp.* 26 millim.

4851. **Nosophora parvipunctalis**, n. sp.

♂. Black-brown; pectus and abdomen below white; fore wing with small white spot beyond discocellulars; hind wing with indistinct pale spot beyond lower angle of cell. (Hind legs wanting.)

*Hab.* Tenasserim (*Doherty*). *Exp.* 28 millim. Type in coll. Druce.

SECT. II. Hind wing of male with no ridge of hair below the subcostals; veins 4, 5 and 6, 7 from angles of cell.

A. *Hind tibiæ of male fringed towards extremity with long hair; the inner terminal spur and first tarsal joint also fringed with hair.*

4852. **Nosophora obliqualis**, *Hmpsn. Ill. Het.* ix, p. 170, pl. 173, fig. 5.

♂. Rufous brown; palpi fuscous; abdomen below and legs whitish. Fore wing with a fuscous fascia along base of costa, thence running above the small hyaline spot in end of cell and below the yellow triangular spot which extends from the costa into the end of cell and is conjoined at costa to the large black-edged yellow triangular postmedial patch extending down to vein 2; the apical area yellow; a marginal series of black specks. Hind wing suffused with fuscous brown; the costal area pale; traces of an oblique line from costa to vein 2, more distinct and waved on the greyish underside.

*Hab.* Ceylon. *Exp.* 24 millim.

B. (Analtes). *Male with the hind tibiæ, the inner terminal spur, and the tarsus naked.*

a. *Fore wing of male with no tufts of hair at middle and end of cell below.*

4853. **Nosophora althealis**, *Wlk. Cat.* xviii, p. 697.
Analtes congenitalis, *Wlk. Cat.* xxxiv, p. 1488.
Nosophora quadrisignata, *Moore, Lep. Ceyl.* iii, p. 320, pl. 183, fig. 6; *C. & S.* no. 4128.

Ochreous and fulvous; palpi fuscous, white below; abdomen with the basal segment white, the terminal segments dark rufous. Fore wing ochreous; the costal area to end of cell and the outer area suffused with fuscous; a small dark spot with a hyaline spot beyond it in end of cell; an indistinct dark line from lower angle of cell to inner margin; a large dark-edged silvery-white patch with indented outer edge from subcostals to vein 2. Hind wing suffused with fuscous, the base pale; a large round dark-edged silvery-white spot beyond the cell with some fulvous beyond it.

Fig. 172.—*Nosophora althealis*, ♂. 1/1.

*Hab.* Sikhim; Ceylon; Andamans; Borneo; Pulo Laut; Sula; Mysol; Amboina; New Guinea. *Exp.* 30 millim.

4854. **Nosophora semitritalis**, *Led. Wien. ent. Mon.* 1863, p. 407, pl. 14, fig. 14.

Differs from *althealis* in the fore wing having a well-defined obliquely sinuous antemedial line; the medial line below cell waved; no fuscous on costa or spot in cell; the postmedial patch expanding towards costa, both its inner and outer edges indented, its lower part small and angled inwards. Hind wing with the spot beyond the cell subquadrate and conjoined to a large white costal patch.

*Hab.* Sikhim; Pulo Laut; Amboina. *Exp.* 30 millim.

b. *Fore wing of male with tufts of rough hair in middle and end of cell below.*

4855. **Nosophora albiguttalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 273, pl. viii, fig. 14.

♂. Black; abdomen below white. Fore wing with a large silvery-white lunule beyond the cell, extending from vein 7 to 2.

*Hab.* Rangoon. *Exp.* 30 millim.

4856. **Nosophora scotaula**, *Meyr. Trans. Ent. Soc.* 1894, p. 459.

♂. Uniform black-brown with a slight cupreous tinge; pectus and abdomen below whitish.

*Hab.* Tenasserim; Singapore; Pulo Laut. *Exp.* 30 millim.

## Genus CHALCIDOPTERA.

Chalcidoptera, *Butl. A. M. N. H.* (5) xx, p. 119 (1887).
Euthalantha, *Snell. Tijd. v. Ent.* xxxviii, p. 144 (1895).
Gnamptorhiza, *Warr. A. M. N. H.* (6) xvii, p. 135 (1896).

Type, *C. crinipes*, Feld.

*Range.* N.W. Himalayas; Assam; Ceylon; Burma; Borneo; Amboina; Solomons.

Palpi upturned, the 2nd joint reaching vertex of head and slightly fringed in front, the 3rd well developed with a small triangular tuft in front; maxillary palpi small and filiform; frons rounded; antennæ of male ciliated. Fore wing with veins 3, 4, 5 well separated at origin; 7 straight and well separated from 8, 9, to which 10 is approximated. Hind wing with the cell about half the length of wing; 3 from angle; 4, 5 somewhat approximated for a short distance; 6, 7 from upper angle, 7 anastomosing strongly with 8.

Sect. I. Antennæ of male with the shaft knotted at one-third from base, then excised, gradually thickened and clothed on upper side with rough scales; abdomen with a large bilobed corneous valve on underside from base covering the spiracles.

4857. **Chalcidoptera straminalis**, *Guen. Delt. & Pyr.* p. 200; *C. & S.* no. 4302.

Synclera nemoralis, *Swinh. P. Z. S.* 1889, p. 421, pl. 44, fig. 6.

♂. Yellowish white slightly irrorated with ferruginous; abdomen

banded with ferruginous. Fore wing with a ferruginous spot at base of costa; a subbasal ferruginous line with a spot beyond it on inner margin; a broad curved antemedial line; a fine discocellular lunule; the postmedial line broad, outwardly oblique from costa to vein 2, where it touches a patch on outer margin, then retracted to lower angle of cell and connected with the antemedial line by a streak on vein 1; a marginal line slightly broadest at apex. Hind wing with discocellular lunule; a postmedial line angled inwards on vein 5, touching a patch on outer margin at vein 2, then retracted to lower angle of cell and running obliquely to near anal angle; a marginal line.

*Hab.* Simla. *Exp.* 24 millim.

Sect. II. Antennæ of male with the base of shaft thickened and slightly excised; the outer margin of both wings excurved at middle; hind wing with a small lobe on inner margin near anal angle.

4858. **Chalcidoptera atrilobalis**, n. sp.

♂. Fuscous grey-brown; abdomen tinged with rufous towards extremity, which has a pair of dorsal black specks on anal segment; fore tibiæ with dark band. Fore wing with inwardly oblique fuscous antemedial line; the medial area rather greyer towards costa; a discocellular black lunule; the postmedial line highly excurved from below costa to vein 2, where it is retracted to below angle of cell; the cilia pure white except at apex and middle. Hind wing with discocellular dark spot; the postmedial line excurved from below costa to vein 2, then retracted to lower angle of cell; the lobe on inner margin black; the cilia with a fine dark line through them.

*Hab.* Tenasserim (*Doherty*). *Exp.* 24 millim. Type in coll. Druce.

Sect. III. (*Gnamptorhiza*). Antennæ of male with a small tooth on outer side of basal joint at extremity, the base of shaft thickened with scales and curved.

4859. **Chalcidoptera rufilinealis**, *Swinh. A. M. N. H.* (6) xvi, p. 303.
Gnamptorhiza multiplicalis, *Warr. A. M. N. H.* (6) xvii, p. 135.

Head, thorax, and abdomen purplish red; palpi below and vertex of head white; wings yellowish white. Fore wing with the base and costal area red; an outwardly oblique red antemedial line angled on vein 1, where it is joined by the angle of an inwardly oblique line from lower angle of cell; a spot in cell and discocellular band; a line from lower angle of cell to outer angle joined by an irregularly sinuous postmedial line; the base of veins 3, 4 and the veins at margin streaked with red; a short apical band and a marginal line; cilia fuscous in parts. Hind wing with large purple-red lunule at lower angle of cell; a pale red

patch above anal angle; a sinuous postmedial line on yellow ground between veins 6 and 2; the veins at margin streaked with red; a marginal red band and the cilia blackish from apex to vein 2.

*Hab.* Khásis. *Exp.* 30 millim.

SECT. IV. (*Chalcidoptera*). Antennæ of male normal; patagia extending beyond metathorax.

A. *Mid and hind tibiæ fringed with immensely long hair on outer side, the inner spurs very long; hind tarsi with the first two joints fringed with long hair on both sides; hind wing with the costa slightly excised beyond middle, the apex much produced and falcate; rough hair on end of vein 1 c below.*

4860. **Chalcidoptera emissalis**, *Wlk. Cat.* xxxiv, p. 1421.
Chalcidoptera rubra, *Butl. A. M. N. H.* (5) xx, p. 120.
Analthes crinipes, *Feld. Reis. Nov.* pl. 134, fig. 43.
Analthes pyrrhocosma, *Meyr. Trans. Ent. Soc.* 1894, p. 460.

♂. Bright ferruginous red; head variegated with ochreous; abdomen with some fuscous at sides. Fore wing with yellow spot in end of cell and small spot below the end; a large reniform patch beyond the cell from below costa to vein 2, with two small spots beyond it below costa; an apical patch and marginal spot at vein 2. Hind wing with large pale yellow subquadrate spot beyond lower angle of cell, with two small submarginal spots beyond it. Underside pale, with the markings in cell of fore wing defined by fuscous; a V-shaped postmedial black mark below costa, a spot on costa before apex, and large patch at middle of outer area; hind wing with broad diffused oblique antemedial black band and the apical area black.

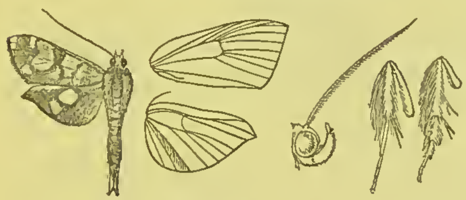

Fig. 173.—*Chalcidoptera emissalis*, ♂. $\frac{1}{1}$.

♀ with the basal half of fore wing yellow, with ill-defined antemedial and medial waved red lines; the lower part of the postmedial reniform mark broken up into spots; hind wing with the base yellow, the apical area blackish; underside with the black confined to the markings of outer area.

Another female has the ferruginous markings much reduced; the ante- and postmedial lines being narrow, with broad areas of the yellow ground-colour beyond the latter, leaving small patches of ferruginous on the margin chiefly on apical area.

*Hab.* Nágas; Margharita, Assam; Ceylon; Tenasserim; Singapore; S.E. Borneo; Amboina; Aru; Solomons. *Exp.*, ♂ 26, ♀ 22 millim.

B. *Mid and hind legs smoothly scaled; hind wing normal.*

4861. **Chalcidoptera appensalis**, *Snell. Tijd. v. Ent.* 1884, p. 41, pl. 3, fig. 12.

♂. Greyish fuscous; palpi with the base and 3rd joint white; frons whitish; abdomen with white dorsal bands. Fore wing with some whitish on base of costa and a black subbasal spot; an antemedial black costal spot with slightly curved line outlined with whitish from it to inner margin; a speck in cell; a large postmedial black-outlined white lunule from costa to lower angle of cell, with incurved line from it to inner margin. Hind wing with fuscous discocellular line; a postmedial line bent outwards between veins 5 and 2 and ending near anal angle. Both wings with marginal dark line and line through the cilia, which are pale at tips. Underside pale.

*Hab.* Khásis; Nágas; Ceylon; Rangoon; Java. *Exp.* 22 millim.

## Genus CAPRINIA.

Caprinia, *Wlk. Cat.* xviii, p. 543 (1859).
Cydalima, *Led. Wien. ent. Mon.* 1863, p. 397.

Type, *C. periusalis*, Wlk., from Venezuela.
*Range.* Venezuela; throughout the Oriental region; Australia.

Differs from *Glyphodes* in the palpi being very broadly and conically scaled, and hardly reaching vertex of head, the 3rd joint upturned.

Sect. I. (*Caprinia*). Antennæ of male normal; fore wing with the apex rectangular, the outer margin erect.

4862. **Caprinia felderi**, *Led. Wien. ent. Mon.* 1863, p. 401, pl. 13, fig. 18.
Caprinia intermedia, *Warr. A. M. N. H.* (6) xvii, p. 100.

♂. Head fuscous black; thorax and abdomen white, the latter with the extremity and anal tuft black. Fore wing pure white; the costal half fuscous black, with projections in cell and on discocellulars; the outer fourth of wing fuscous black; a series of three postmedial white specks from below costa to vein 5. Hind wing pure white, with a discocellular speck and the apical area black.

*Hab.* Khásis; Nágas; Java; Amboina. *Exp.* 24–26 millim.

Sect. II. Antennæ of male with the base of shaft excised; fore wing with costal fold enclosing an expansile tuft of long hair.

4863. **Caprinia diaphanalis**, *Wlk. Cat.* xxxiv, p. 1365.
Botys margaronialis, *Wlk. Cat.* xxxiv, p. 1442.
Margaronia plumifera, *Butl. A. M. N. H.* (5) x, p. 236.

♂. White; the tip of palpi, frons, base of collar, and shoulders fuscous; legs fuscous above, the tarsi ringed with white. Fore wing with fuscous streaks along basal two-thirds of costa and

subcostal nervure, the other veins slightly tinged with fuscous; a discocellular black lunule and a marginal series of black specks. Hind wing hyaline white, with marginal series of black specks from apex to vein 2.

*Hab.* Tenasserim; Java; Solomons; New Britain; Australia. *Exp.* 32 millim.

Sect. III. (*Cydalima*). Antennæ of male with the basal joint dilated, the basal part of shaft thickened with scales and contorted; fore wing with the apex produced, the outer margin oblique.

4864. **Caprinia conchylalis**, *Guen. Delt. & Pyr.* p. 303, pl. 8, fig. 9; *C. & S.* no. 4200.

Pure white; head black-brown, the palpi with a metallic tinge;

Fig. 174.—*Caprinia conchylalis*, ♂. ½.

collar, fore and mid legs tinged with cupreous brown; anal tuft of male black. Fore wing with broad costal cupreous-brown band; both wings with series of silvery striæ close to the margin, which is silvery white.

*Hab.* Sikhim; Assam; Bombay; Nilgiris; Ceylon; Burma. *Exp.* 40–46 millim.

## Genus MACARETÆRA.

Macaretæra, *Meyr. Trans. Ent. Soc.* 1886, p. 255.
Trichoptychodes, *Swinh. A. M. N. H.* (6) xiv, p. 207 (1894).

Type, *M. hesperis*, Meyr.

*Range.* Khásis; Fiji.

Palpi upturned and reaching vertex of head, the 2nd and 3rd joints conically scaled and flattened; maxillary palpi filiform; frons flat and oblique; antennæ annulated; tibiæ slightly fringed with hair on outer side, the outer spurs about half the length of inner. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with the median nervure pectinated above; vein 1*a* in male with a thick ridge of scales above; the cell about half the length of wing; vein 3 from angle, in male with a small tuft of scales below near the margin; veins 3, 4 stalked, in male 4 almost obsolete; 6, 7 from upper angle, 7 anastomosing with 8.

4865. **Macaretæra hesperis**, *Meyr. Trans. Ent. Soc.* 1886, p. 255.
Trichoptychodes delicata, *Swinh. A. M. N.H.* (6) xiv, p. 207.

♂. Head, thorax, and abdomen brownish, the last ringed with white; palpi white; fore legs banded yellow and white. Fore wing white, with yellow spot at base of costa; a broad oblique subbasal yellow band with waved outer edge; an oblique yellow antemedial band from costa to median nervure; three oblique bands just beyond the middle, their extremities attenuated, fuscous, and conjoined on vein 3, where they are merged in a diffused dark patch on inner margin crossed by a waved white line; the outer area yellow, with a waved oblique white streak from apex and another from outer margin below apex to vein 2. Hind wing white, with a broad fuscous-black marginal band diffused along the median nervules to cell; the margin white at apex; the ridge of scales on vein 1*a* brown and black.

Fig. 175.
*Macaretæra hesperis*, ♂. 1/1.

♀ with the markings of thorax and abdomen yellower; fore wing with the dark postmedial patch on inner area browner and broken up into streaks on veins 2 and 3 and spots on inner margin; hind wing with hardly a trace of fuscous on outer area.

*Hab.* Khásis; Fiji. *Exp.*, ♂ 18, ♀ 20 millim.

## Genus FILODES.

Filodes, *Guen. Delt. & Pyr.* p. 317 (1854).
Pinacia, *Hübn. Samml. exot. Schmett.* iv, 4, p. 15 (1832), non descr.
Auxomitia, *Led. Wien. ent. Mon.* 1863, p. 391.

Type, *F. fulvidorsalis*, Hübn.

*Range.* Ethiopian and Oriental regions.

Palpi upturned and hardly reaching vertex of head, the 2nd and 3rd joints conically scaled; maxillary palpi filiform; frons with a rounded prominence; antennæ nearly one and a half times the length of fore wing and minutely annulated; fore tarsi of male with the first three joints fringed with hair on inner side; hind tibiæ with the outer medial spur absent, the tarsi very long; abdomen long, with lateral tufts on terminal segments; anal tuft of male thick, of female slender. Fore wing with the costa highly arched towards apex; veins 3, 4, 5 from angle of cell, 7 curved and approximated to 8, 9, to which 10 also is closely approximated. Hind wing with the cell short; veins 3, 4, 5 radiating from the angle; 6, 7 on a long stalk, 7 anastomosing or in male becoming coincident with 8.

4866. **Filodes fulvidorsalis**, *Hübn. Samml. exot. Schmett.* iv, 4, p. 15, figs. 643, 644; *Moore, Lep. Ceyl.* iii, pl. 182, figs. 2, 2 *a* (larva); *C. & S.* no. 4220.
Auxomitia mirificalis, *Led. Wien. ent. Mon.* 1863, p. 391, pl. 13, fig. 1; *C. & S.* no. 4221.
Filodes patruelis, *Moore, Lep. Atk.* p. 218; *C. & S.* no. 4224.

Head black; the palpi steel-blue; vertex of head, thorax, and abdomen orange-scarlet; pectus yellow; tarsi pale; abdomen with

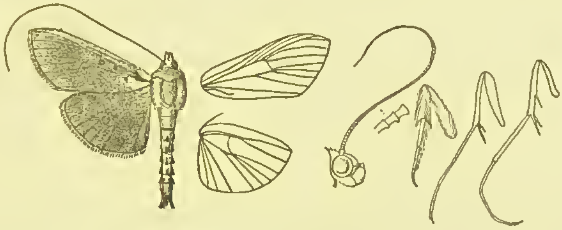

Fig. 176.—*Filodes fulvidorsalis*, ♂. 1/1.

a dorsal series of black spots and steel-blue segmental rings, the lateral and anal tufts steel-blue and black; wings black-brown, greyish towards outer margin and sometimes with traces of an oblique postmedial line, which may be prominent on underside. Fore wing with an orange basal patch; a steel-blue fascia below basal half of costa; a black spot at origin of vein 2, usually with a spot above it in the cell; a spot at middle of cell and larger discocellular spot. Underside of fore wing with steel-blue subcostal fascia; hind wing with discocellular black lunule.

The Sikhim form is large; the variety *mirificalis*=*patruelis* has the orange of the thorax and abdomen more or less suffused with fuscous. Fore wing with the basal orange patch obscure and diffused, the postmedial line somewhat prominent on upperside of both wings; a Khási specimen has the ground-colour dull ferruginous.

*Larva* olive-green, with a subdorsal whitish fascia; each somite with several black warty spots; head yellowish; legs black. Food-plant *Thunbergia allata*. *Pupa* red, with long sheaths for antennæ and proboscis, the former serrated.

*Hab.* Réunion; throughout India, Ceylon, and Burma; Andamans; Nicobars; Philippines; Borneo; Java; Sumbawa. *Exp.* 30–44 millim.

4867. **Filodes sexpunctalis**, *Snell. Trans. Ent. Soc.* 1890, p. 603, pl. xx, figs. 6, 6 *a*.

Differs from *fulvidorsalis* in the colour of the thorax, abdomen, and base of fore wing being much deeper orange-red; fore wing without the black spots at middle of cell and on discocellulars; underside without black spots.

*Hab.* Sikhim. *Exp.* 46 millim.

## Genus TYSPANODES.

Tyspanodes, *Warr. A. M. N. H.* (6) vii, p. 425 (1891).
Peribona, *Snell. Tijd. v. Ent.* xxxviii, p. 145 (1895).
Radiorista, *Warr. A. M. N. H.* (6) xvii, p. 138 (1896).

Type, *T. nigrolinealis*, Moore.
*Range.* N.W. & E. Himlayas; Khásis; Ceylon; Andamans; Java.

Palpi upturned and hardly reaching vertex of head; 2nd and 3rd joints conically scaled; maxillary palpi filiform; frons flat and oblique; antennæ almost simple. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9, to which 10 is approximated. Hind wing with vein 3 from angle of cell; 4, 5 closely approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

Sect. I. (*Tyspanodes*). Antennæ of male without sinus and corneous teeth at base of shaft.

4868. **Tyspanodes linealis**, *Moore, P. Z. S.* 1867, p. 665, pl. 33, fig. 17; *C. & S.* no. 4727.

Straw-colour; thorax and abdomen with an orange tinge, the latter suffused with fuscous towards extremity. Fore wing with the interspaces striped with fine black lines, the cell and interno-median interspace each having two lines; a fine marginal black line. Hind wing and underside more or less suffused with fuscous.

*Hab.* Dharmsála; Sikhim; Ceylon; Andamans. *Exp.* 28 millim.

4869. **Tyspanodes flaviventer**, *Warr. A. M. N. H.* (6) vii, p. 425.

♂. Head yellow; thorax grey; abdomen orange, with the anal tuft black. Fore wing grey, with a black spot at base; two antemedial series of three black spots; a quadrate spot in end of cell; the interspaces striped with black beyond the cell. Hind wing orange; the costal and apical areas black. Underside of fore wing fuscous, with some grey suffusion on disk.

*Hab.* Sikhim. *Exp.* 32 millim.

4870. **Tyspanodes nigrolinealis**, *Moore, P. Z. S.* 1867, p. 95; *C. & S.* no. 4222.

♂. Head, thorax, and fore wing orange, the last with black spot at base and two in end of cell; black streaks in all the inter-spaces; abdomen and hind wing black. Underside of fore wing orange, the apical area fuscous.

*Hab.* Sikhim. *Exp.* 34 millim.

4871. **Tyspanodes fascialis**, *Moore, P. Z. S.* 1867, p. 665; *C. & S.* no. 4726.

♂. Head and thorax fiery red; palpi at base and abdomen black.

Fore wing fiery red; a basal black mark; veins 1 to 7 and the

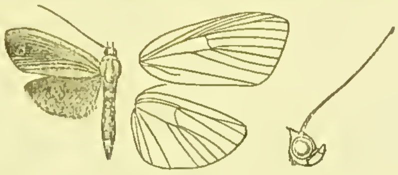

Fig. 177.—*Tyspanodes fascialis*, ♂. 1/1.

interspaces below and beyond the cell streaked with black; a large black patch on middle of outer area. Hind wing black.

*Hab.* Sikhim; Khásis. *Exp.* 28 millim.

4872. **Tyspanodes cardinalis**, n. sp.

♀. Head black; thorax crimson; abdomen black; legs black, the tarsi banded with white. Fore wing crimson, the costa orange; a black streak from middle of discocellulars widening to outer margin, the cilia black from that point to outer angle. Hind wing black. Underside of fore wing with the apical area fuscous.

*Hab.* Nágas (*Doherty*). *Exp.* 42 millim. Type in coll. Elwes.

Sect. II. (*Peribona*). Antennæ of male with a sinus and four or five corneous teeth at base of shaft.

4873. **Tyspanodes venosa**, *Butl. Ill. Het.* vii, p. 98, pl. 135, fig. 10.

Fuscous brown with a cupreous tinge; frons white in male; palpi below, pectus, and legs white. Fore wing with large triangular ochreous patch on costa just before middle extending down to vein 6, its apex truncate and whitish; the outer area slightly suffused with grey; the veins and interspaces streaked with brown. Hind wing with traces of grey towards apex; both wings with marginal brown line; the cilia whitish, with a brown line through them. Underside almost entirely suffused with grey.

*Hab.* Dharmsála; Sikhim; Java. *Exp.* 26 millim.

## Genus NEVRINA.

Nevrina, *Guen. Delt. & Pyr.* p. 313 (1854).

Euglyphis, *Hübn. Verz.* p. 341 (? 1818), non. descr.

Type, *N. procopia*, Cram.

*Range.* India, Ceylon, and Burma; Malayan subregion.

Palpi upturned, the 2nd and 3rd joints conically scaled and not reaching vertex of head; maxillary palpi filiform; frons rounded; antennæ nearly simple and minutely annulated towards extremity; tibiæ with the outer spurs half the length of inner; fore tibiæ fringed with hair; mid tibiæ clothed with rough hair on outer side, and hind tibiæ with a tuft of long hair on outer side near base;

abdomen long, male with the anal tuft large. Fore wing with the costa arched towards apex; the outer margin oblique; veins 3, 4, 5 radiating from angle of cell; 7 curved and approximated to 8, 9, to which 10 also is closely approximated. Hind wing with vein 3 from angle of cell; 4, 5 closely approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

4874. **Nevrina procopia**, *Cram. Pap. Exot.* iv, pl. 368, fig. E; *Moore, Lep. Ceyl.* iii, pl. 182, fig. 1; *C. & S.* no. 4219.

Head and thorax orange; abdomen whitish, with dorsal and paired lateral series of black patches. Fore wing with the basal third orange; a black spot at base and an antemedial spot below

Fig. 178.—*Nevrina procopia*, ♂. 1/1.

median nervure. Hind wing with the basal inner area and a discocellular spot orange; both wings with a hyaline medial band; the outer half purplish fuscous, the veins white.

*Hab.* Throughout India, Ceylon, and Burma; Java; Amboina. *Exp.* 38 millim.

## Genus PHRYGANODES.

Phryganodes, *Guen. Delt. & Pyr.* p. 353 (1854).
Omiodes, *Guen. Delt. & Pyr.* p. 355.
Cœnostola, *Led. Wien. ent. Mon.* 1863, p. 408.
Nagia, *Wlk. Cat.* xxxiv, p. 1320 (1865).
Condega, *Moore, Lep. Ceyl.* iii, p. 344 (1886).
Charema, *Moore, Lep. Atk.* p. 218 (1888).

Type, *P. plicatalis*, Guen., from Brazil.
*Range.* Neotropical region; India, Ceylon, and Burma; Malayan and Australasian subregions.

Palpi upturned and reaching vertex of head, the 2nd and 3rd joints conically scaled and tapering to the apex; maxillary palpi filiform; frons rounded; antennæ nearly as long as fore wing and minutely ciliated; tibiæ with the outer spurs about half the length of inner; abdomen long. Fore wing with the costa arched towards apex which is produced, the outer margin obliquely rounded, the inner margin somewhat lobed towards base; veins 3, 4, 5 from angle of cell, 7 approximated to 8, 9 for about one-third length; 10 closely approximated to 8, 9. Hind wing with the costa arched at middle; the cell short; veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

The typical species has the neuration much distorted in male.

SECT. I. (*Omiodes*). Antennæ of male with the shaft not excised at base.

A. *Patagia of male without long tufts of hair; mid tibiæ smoothly scaled.*

a. *Wings with the outer margin not excurved at middle nor excised towards apex and anal angles.*

a'. *Fore wing of male with no tuft of hair or ridge of scales from base of costa below.*

4875. **Phryganodes unitalis**, *Guen. Delt. & Pyr.* p. 349; *C. & S.* no. 4080.
Botys megapteralis, *Wlk. Cat.* xxxiv, p. 1407; *C. & S.* no. 4165.
Pachynoa opalinalis, *Moore, P. Z. S.* 1877, p. 620; *C. & S.* no. 4166.

Fuscous grey-brown with an opalescent gloss; palpi fuscous, white below; anal tuft ochreous; abdomen of male with long lateral tufts from base. Fore wing with obscure curved antemedial dark line; a speck in cell and discocellular spot; an obscure postmedial line excurved from costa to vein 3, then retracted to angle of cell and slightly excurved again. Hind wing with discocellular spot; an obscure postmedial line excurved from costa to vein 3, then retracted. Underside suffused with whitish, especially towards base of each wing.

*Hab.* Sikhim; Khásis; Andamans; Ceram. *Exp.* 40–44 millim.

4876. **Phryganodes glyphodalis**, *Wlk. Cat.* xxxiv, p. 1488.

♂. Dull fulvous brown; palpi white below. Fore wing with large dark-edged ochreous discocellular lunule connected with the costal and inner margins by traces of a sinuous line. Hind wing with slight dark line on discocellulars and ill-defined ochreous spot on their outer edge; cilia of both wings grey.

♀ with the ochreous mark beyond cell of fore wing larger, its lower part expanding into the sinus of the postmedial line between veins 5 and 2; hind wing with nearly complete medial band bent outwards between veins 5 and 2.

*Hab.* Bhután; Ceylon; E. Pegu; Sula, Celebes. *Exp.* 30 millim.

4877. **Phryganodes schediusalis**, *Wlk. Cat.* xviii, p. 683.
Charema carbonalis, *Swinh. A. M. N. H.* (6) xiv, p. 202.

♂. Abdomen with large corneous stigmatic valves. Fuscous black; palpi white below; coxæ and tarsi whitish; wings shot with purple, especially on outer area; the basal area to just beyond middle deeper black and less shot with purple; black discocellular spots; a fine pale line at base of cilia. Underside somewhat greyer.

*Hab.* Sikhim; Khásis; Andamans; Borneo. *Exp.* 30 millim.

4878. **Phryganodes imbecilis**, *Moore, Lep. Atk.* p. 219, pl. 7, fig. 23; *C. & S.* no. 4234.

Charema scabripennis, *Warr. A. M. N. H.* (6) xvii, p. 131.

Dark fuscous brown with a slight purplish tinge. Fore wing with an oblique sinuous antemedial black line; a spot in cell and larger discocellular spot; a dentate postmedial line straight from costa to vein 3, then retracted to below end of cell and excurved again. Hind wing with discocellular black spot; a minutely dentate postmedial line bent outwards between veins 5 and 2.

*Hab.* Sikhim; Khásis. *Exp.* 38 millim.

4879. **Phryganodes unitinctalis**, n. sp.

Glossy brown; palpi fuscous, whitish at base; legs and underside of thorax and abdomen whitish; fore tibiæ with a fuscous band. Fore wing with obliquely curved antemedial fuscous line; a spot in cell and one on discocellulars; the postmedial line nearly straight from costa to vein 2, then retracted to below angle of cell and excurved again. Hind wing with the line almost medial, somewhat indistinct, and bent outwards between veins 5 and 2.

*Hab.* E. Pegu (*Doherty*). *Exp.* 30 millim. Type in coll. Elwes.

b′. *Fore wing of male with a large tuft of long hair from base of costa below.*

4880. **Phryganodes lophophoralis**, n. sp.

♂. Differs from *imbecilis* in being paler and greyer; neither wing with the postmedial line waved; hind wing with no discocellular spot; abdomen whitish below, the anal segment black.

*Hab.* Sikhim (*Möller*). *Exp.* 40 millim. Type in coll. Elwes.

c′. *Fore wing of male with a thick ridge of large scales concealing tufts of long hair on basal half of costa below.*

4881. **Phryganodes pachycraspedalis**, n. sp.

Differs from *imbecilis* in being duller brown. Fore wing with the speck in cell and discocellular spot small; the postmedial line of both wings less prominent, and on fore wing hardly waved from costa to vein 2. Underside whitish.

*Hab.* Margharita, Assam (*Doherty*). *Exp.* 36 millim. Type in coll. Elwes.

b. *Wings with the outer margins excurved at middle and excised towards apex and anal angles.*

4882. **Phryganodes maculicostalis**, *Hmpsn. Ill. Het.* ix, p. 171, pl. 172, fig. 12.

♂. Smoky black with a slight purple tinge; palpi below, thorax, and legs white. Fore wing with curved antemedial line; a postmedial white spot on costa; both wings with discocellular black spot and a postmedial line sinuous from costa to vein 2, then retracted to

below end of cell, and on hind wing oblique to near anal angle; cilia tipped with white towards outer angle of fore wing and anal angle of hind wing. Underside greyish.

*Hab.* Nágas; Ceylon. *Exp.* 24 millim.

B. *Patagia of male with a tuft of hair extending slightly beyond metathorax; fore tibiæ with a groove containing a tuft of hair; mid tibiæ with thick tufts of hair, the inner spur very long and tufted with hair; hind tibiæ shortened, dilated, and with thick tufts of hair, the inner spurs extremely long, the terminal pair and the tarsus fringed with long hair.*

4883. **Phryganodes longipennis,** *Warr. A. M. N. H.* (6) xvii, p. 132.

♂. Dull brown; tarsi pale; anal tuft tinged with rufous. Fore wing with the costal area suffused with fuscous; an outwardly oblique antemedial dark line; a spot in cell and discocellular lunule; a dark postmedial line excurved and dentate from costa to vein 2, then retracted to below end of cell, and almost meeting the antemedial line on inner margin. Hind wing suffused with fuscous and with traces of postmedial line angled on vein 3.

*Hab.* Khásis; Andamans. *Exp.* 38 millim.

C. *Patagia of male with long tufts of hair extending far beyond the metathorax; mid tibiæ clothed with rough hair on outer side; abdomen with no lateral tufts of hair from base.*

4884. **Phryganodes noctescens,** *Moore, Lep. Atk.* p. 218; *C. & S.* no. 4235.

♂. Dark fuscous, sometimes with a slight rufous tinge; the palpi below, pectus, fore legs, mid tibiæ, and abdomen below orange-yellow; the tarsi white; the patagial tufts with a rufous tinge. Fore wing with obscure antemedial oblique fuscous line; a speck in cell and discocellular spot; an obscure postmedial line, excurved from below costa to vein 3, then bent inwards to below angle of cell; the cilia white-tipped towards outer angle. Hind wing with obscure medial sinuous line.

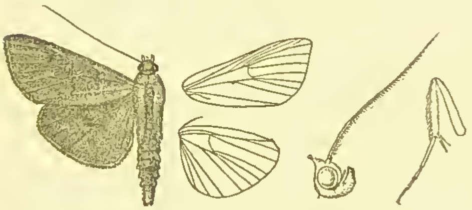

Fig. 179.—*Phryganodes noctescens*, ♂. 1/1.

*Hab.* Sikhim; Khásis. *Exp.* 38–40 millim.

4885. **Phryganodes palliventralis,** *Snell. Trans. Ent. Soc.* 1890, p. 620.

♂. [Differs from *noctescens* in the palpi below, the pectus, leg, and abdomen below being whitish; the patagial tufts fuscous brown.

*Hab.* Sikhim; Khásis. *Exp.* 30 millim.

4886. **Phryganodes analis**, *Snell. Tijd. v. Ent.* xxiii, p. 227.
Charema albociliata, *Moore, Lep. Atk.* p. 219; *C. & S.* no. 4232.

Differs from *palliventralis* in being browner and less fuscous; the underside of head, thorax, and abdomen unicolorous; the patagial tufts with a fulvous tinge; wings with the lines well defined and minutely dentate; the cilia of both wings with the tips white. Underside greyish.

*Hab.* Sikhim; Nágas; Calcutta; Celebes; Duke of York Island. *Exp.* 30 millim.

4887. **Phryganodes crithonalis**, *Wlk. Cat.* xviii, p. 682.

♂. Dark fuscous; the tarsi whitish. Fore wing with traces of sinuous antemedial line; a speck in cell; both wings with a discocellular speck; a minutely dentate posmedial line bent outwards between veins 5 and 2, then retracted to below angle of cell and ending near anal angle on hind wing.

*Hab.* Khásis; Borneo; Amboina. *Exp.* 32 millim.

SECT. II. (*Condega*). Antennæ of male with the base of shaft greatly excised; patagia with long tufts of hair extending beyond the metathorax.

4888. **Phryganodes obscurata**, *Moore, Lep. Ceyl.* iii, p. 345, pl. 183, fig. 12; *C. & S.* no. 4127.

♂. Reddish brown. Fore wing with obliquely waved antemedial line; a discocellular speck; both wings with a minutely waved postmedial line excurved from costa to vein 2, then retracted to below end of cell; cilia brown at base, pale at tips.

*Hab.* Sikhim; Khásis; Ceylon; Tenasserim. *Exp.* 30 millim.

## Genus OLIGOCENTRIS, nov.

Type, *O. deciusalis*, Wlk.

*Range.* Ceylon; Pulo Laut.

Palpi upturned; the 2nd and 3rd joints conically scaled and reaching above vertex of head; maxillary palpi filiform; frons rounded; antennæ of male with long cilia; male with a tuft of long hair from origin of fore wing below; mid tibiæ with the outer spurs about half the length of inner; hind tibiæ with the medial spurs absent; the outer terminal spurs minute; the inner spur enlarged and roughly scaled; female with the medial spurs present, the outer minute. Fore wing with the apex rectangular; vein 3 from slightly before angle of cell; 4, 5 from the angle, 7 widely separated from 8, 9, to which 10 is closely approximated. Hind wing with vein 3 from angle of cell, which is nearly half the length of wing; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8; male with fringe of long hair at anal angle.

4889. **Oligocentris deciusalis**, *Wlk. Cat.* xviii, p. 696; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 13; *C. & S.* no. 4161.

♂. Yellowish brown with a slight cupreous tinge; fore tibiæ with a black band. Fore wing with obliquely curved antemedial line; traces of a speck in cell and another on discocellulars; both wings with an obscure postmedial line excurved from costa to vein 2, then retracted nearly to angle of cell and excurved again. Underside greyish.

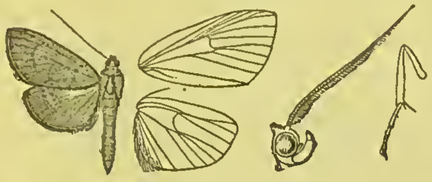

Fig. 180.—*Oligocentris deciusalis*, ♂. 1/1.

*Hab.* Ceylon; Pulo Laut. *Exp.* 30 millim.

## Genus DICHOCROCIS.

Dichocrocis, *Led. Wien. ent. Mon.* 1863, p. 447.
Conogethes, *Meyr. Trans. Ent. Soc.* 1884, p. 314.
Gadessa, *Moore, Lep. Ceyl.* iii, p. 278 (1886).
Dadessa, *Moore, Lep. Ceyl.* iii, p. 333.
Phædropsis, *Warr. A. M. N. H.* (6) vi, p. 476 (1890).
Orthospila, *Warr. A. M. N. H.* (6) vi, p. 477.
Zebrodes, *Warr. A. M. N. H.* (6) xvii, p. 104 (1896).

Type, *D. pandamalis*, Wlk.

*Range.* Japan and throughout the Oriental and Australian regions.

Palpi upturned, conical, and hardly reaching vertex of head; maxillary palpi filiform; frons rounded; antennæ of male somewhat thickened and almost simple; tibiæ with the outer spurs less than half the length of inner; mid tibiæ fringed with spinous hair on outer side. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9 *; 10 approximated to 8, 9. Hind wing with vein 3 from angle of cell; 4, 5 separate at origin or slightly approximated for a short distance; 6, 7 shortly stalked, 7 anastomosing with 8.

SECT. I. (*Dadessa*). Hind wing of male with a small tuft of scales on upperside at origin of vein 2, and a tuft of thick short black hair on vein 1 *b* above anal angle, the veins somewhat distorted; hind leg with a tuft of black hair on outer side of 1st joint of tarsus.

4890. **Dichocrocis evaxalis**, *Wlk. Cat.* xix, p. 995; *Moore, Lep. Ceyl.* iii, pl. 183, fig. 3; *C. & S.* no. 4029.
Botys aureolalis, *Led. Wien. ent. Mon.* 1863, p. 473.

♂. Differs from *punctiferalis* in the spots being smaller; fore

* In *evaxalis*, *punctiferalis*, and *festivalis* vein 7 is somewhat approximated to 8, 9 at base, and 4, 5 of hind wing somewhat approximated, especially in the males.

wing with the antemedial spots conjoined into a sinuous line; the medial spots conjoined as a sinuous line to the line on discocellulars; the postmedial spots forming an almost complete line.

♀ with all the markings smaller; the submarginal spots of both wings reduced to specks.

*Hab.* Bhután; Khásis; Ceylon; Sumatra. *Exp.*, ♂ 24–30, ♀ 26–34 millim.

SECT. II. Hind wing of male with the cell clothed with long hair on underside.

4891. **Dichocrocis bistrigalis**, *Wlk. Cat.* xxxiv, p. 1348; *C. & S.* no. 4314.

Bright ochreous; collar, patagia, and abdomen spotted with black. Fore wing with two basal black spots; three subbasal, with two beyond them on costa and inner margin; an antemedial spot in cell and line from median nervure to inner margin; two lunules outlining the discocellulars, with a spot above them on the costa; a medial line from vein 2 to inner margin; an outwardly oblique postmedial line ending on vein 2, with a slight curve and more or less developed spot; a submarginal line from costa to vein 3. Hind wing with discocellular spot; a postmedial triangular spot below the costa; a round spot on veins 3 and 5, and line from vein 2 to inner margin; a submarginal line from costa to vein 5, a spot on veins 3 and 4, and another below vein 2. Both wings with fine black marginal line.

*Hab.* Sikhim; Bhután. *Exp.* 30 millim.

SECT. III. Hind wing of male without tufts.

A. (Dichocrocis). *Abdomen of male with long protrusible upcurled anal tufts, rarely exserted.*

4892. **Dichocrocis pandamalis**, *Wlk. Cat.* xix, p. 999.
Dichocrocis frenatalis, *Led. Wien. ent. Mon.* 1863, p. 448, pl. 17, fig. 15; *C. & S.* no. 4293.

Orange; palpi blackish above; abdomen slightly ringed with black. Fore wing with black spot at base of costa; antemedial linear spots on costa and inner margin. Both wings with postmedial line straight from costa to vein 4, then usually bent outwards as an almost disconnected spot near the margin and retracted again.

The discocellular spot of fore wing may be absent, and the postmedial line of each wing not bent outwards between veins 5 and 2.

*Hab.* Khásis; Nicobars; Java; Pulo Laut; S.E. Borneo; Sumbawa. *Exp.* 20 millim.

4893. **Dichocrocis bilinealis**, n. sp.

♀. Differs from *pandamalis* in having complete ante- and postmedial black bands on fore wing, the latter straight from costa to

vein 2, then slightly retracted. Hind wing with medial and postmedial bands, the latter terminatiug at vein 2. Both wings with slight dark marginal line.

*Hab.* Teuasserim (*Doherty*). *Exp.* 18 millim. Type in coll. Druce.

B. (Conogethes). *Abdomen of male without protrusible anal tufts.*

a. *Hind tibiæ of male not fringed with long hair.*

4894. **Dichocrocis punctiferalis**, *Guen. Delt. & Pyr.* p. 320.
Astura ersealis, *Wlk. Cat.* xix, p. 980.
Botys nicippealis, *Wlk. Cat.* xix, p. 999.
Astura guttalalis, *Wlk. Cat.* xxxiv, p. 1381.
Astura semifascialis, *Wlk. Cat.* xxxiv, p. 1381; *C. & S.* no. 4032.
Conogethes nigralis, *Warr. A. M. N. H.* (6) xviii, p. 168.

Bright straw-yellow; palpi black at sides; collar and patagia spotted with black; abdomen with dorsal and lateral series of black spots; male with the anal tuft more or less black. Fore wing with black spot at base of costa; three subbasal black spots and three antemedial; a spot in cell and discocellular spot; an oblique medial series from lower angle of cell to inner margin; a postmedial sinuous series with the spots on veins 5 aud 2 displaced inwards; a submarginal series with the spot on vein 5 displaced inwards. Hind wing with discocellular spot; a medial series highly excurved between veins 2 and 5, and a sinuous submarginal series.

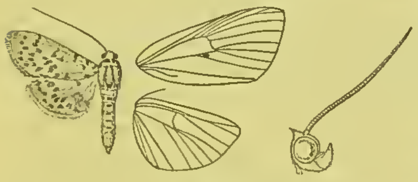

Fig. 181.
*Dichocrocis punctiferalis*, ♂. ½.

The variety *ersealis* has the spots small, and in *semifascialis* the medial area of fore wing from the antemedial spot as far as the medial and below vein 5 to the postmedial is suffused with rufous; in the typical form the spots are of medium size; whilst in a race from Burma which is orange fulvous they are very large.

*Hab.* Japan; China; throughout India, Ceylon, and Burma; the Malayan subregion and Australian region. *Exp.* 24–32 millim.

4895. **Dichocrocis pluto**, *Butl. A. M. N. H.* (5) xx, p. 121.

Differs from *punctiferalis* in the ground-colour beiug reddish brown suffused with fuscous.

*Hab.* Teuasserim; Alu, Solomon Isles. *Exp.* 28 millim.

4896. **Dichocrocis hæmactalis**, *Snell. Trans. Ent. Soc.* 1890, p. 592.

Bright ochreous; palpi pink; thorax and abdomen spotted with pink. Fore wing with pink spots on basal area; an antemedial pink line angled on median nervure; a speck in cell; a medial line angled on median nervure and dentate below it; some streaks

beyond lower angle of cell, with a patch below them on inner area; an irregular outwardly oblique postmedial line terminating on vein 2, with spots and streaks beyond it. Hind wing with spots at base and in cell; a postmedial series of spots bent outwards between veins 5 and 2; an irregular submarginal series of spots.

*Hab.* Sikhim; Bhután; Pulo Laut; Sumbawa. *Exp.*, ♂ 22, ♀ 24 millim.

4897. **Dichocrocis festivalis**, *Swinh. P. Z. S.* 1885, p. 872; *C. & S.* no. 4033.

♀. Orange-yellow; a black spot on shoulders; fore tibiæ and tarsi spotted with black; abdomen with a black speck on anal tuft. Fore wing with large black spot near base of costa and another on inner margin; a sinuous antemedial black band; a speck in cell and large discocellular spot; a sinuous postmedial band, with waved outer edge bent outwards between veins 5 and 2; a marginal fuscous-black band, broadest at apex and outer angle. Hind wing with sinuous black postmedial band bent outwards between veins 5 and 2; a marginal fuscous-black band narrowing to anal angle.

*Hab.* Bombay. *Exp.* 22 millim.

4898. **Dichocrocis nigrilinealis**, *Wlk. Cat.* xxxiv, p. 1410.
Haritala tigrina, *Moore, Lep. Ceyl.* iii, p. 312, pl. 182, fig. 5; *C. & S.* no. 4327.
Botys demeter, *Snell. Trans. Ent. Soc.* 1890, p. 586.

White suffused with bright golden yellow; fore legs spotted with black; thorax striped with orange; abdomen banded with orange; a black spot at base of anal tuft. Fore wing with two subbasal orange lines, the former black towards costa and with an orange patch beyond it; an antemedial orange line with black spot on it at costa; a large black discocellular spot; a postmedial line with black spot on it at costa, and oblique to vein 2, along which it is retracted; a curved submarginal line projecting inwards and meeting the postmedial line at vein 2. Hind wing with oblique subbasal and antemedial lines, the latter connected by a streak along vein 2 with the postmedial line, which is joined at vein 2 by a submarginal line; cilia of each wing grey, with a black line at base.

The typical form has the ground-colour rather more uniform yellow than the form *tigrina*.

*Hab.* Dharmsála; Sikhim; Khásis; Bombay; Nilgiris; Ceylon; Lower Burma; Cambodia; Sula, Celebes; Mysol. *Exp.* 26–36 millim.

4899. **Dichocrocis definita**, *Butl. Ill. Het.* vii, p. 97, pl. 135, fig. 9.

Differs from *nigrilinealis* in being yellowish fuscous, with no orange tints; the anal tuft orange and black. Fore wing with the subbasal, ante- and postmedial lines black with pale outlines; the 2nd subbasal line brown. Hind wing with the subbasal line brown

and indistinct; the antemedial and an oblique postmedial line from costa to vein 2 black with pale outline. Both wings with the marginal area brown and not defined by a submarginal line.

*Hab.* Dharmsála; Sikhim; Khásis. *Exp.* 34 millim.

4900. **Dichocrocis plutusalis**, *Wlk. Cat.* xvii, p. 478; *C. & S.* no. 4325.
Pycnarmon discinotalis, *Moore, P. Z. S.* 1877, p. 617; *C. & S.* no. 4321.

Differs from *nigrilinealis* in the ground-colour being whiter. Fore wing with the postmedial line running down to an acute angle on vein 2, then retracted to the angle of cell; both wings with broad orange submarginal band and the margin whitish; a fine fuscous marginal line and line through the base of cilia.

*Hab.* Sikhim; Khásis; Andamans. *Exp.* 28 millim.

4901. **Dichocrocis recurrens**, *Moore, Lep. Atk.* p. 215, pl. 7, fig. 11; *C. & S.* no. 4326.

♂. Differs from *nigrilinealis* in the markings being brighter. Fore wing with the black marks on the subbasal, antemedial, and postmedial lines reduced to specks; no black discocellular spot; the 2nd subbasal line more oblique; the postmedial line produced to the submarginal band at a very acute angle on vein 2, then retracted to angle of cell; a black spot on the submarginal band above inner margin. Hind wing with no subbasal line; the antemedial line joined by a fascia on inner area and not conjoined to the postmedial line; the submarginal band broad.

*Hab.* Sikhim. *Exp.* 24 millim.

4902. **Dichocrocis pyrrhalis**, *Wlk. Cat.* xvii, p. 483.
Haritala angulifascia, *Hmpsn. Ill. Het.* viii, p. 136, pl. 155, fig. 10.

Differs from *nigrilinealis* in the ground-colour being silvery white. Fore wing with hardly a trace of black marks on the lines at costa; no discocellular mark; the postmedial line produced to a very acute angle on vein 2 and joined by a diffused orange streak from the discocellulars. Hind wing with no subbasal line. Both wings with submarginal orange band, followed by a white line and a marginal orange band.

*Hab.* Nilgiris; Ceylon; Borneo; Pulo Laut. *Exp.* 26 millim.

4903. **Dichocrocis plenistigmalis**, *Warr. A. M. N. H.* (6) xvi, p. 477.

Reddish orange; palpi fuscous except the 3rd joint. Fore wing with red-brown suffusion on basal area and large patches at middle and end of cell extending almost to costa and below median nervure; an obliquely sinuous antemedial line; a sinuous line from discocellular patch to inner margin; an indistinct postmedial line, oblique from costa to vein 6, then erect and minutely dentate; an indistinct curved maculate submarginal line; the apical area yellower. Hind wing with irregular antemedial grey line; a post-

medial line running into an almost marginal grey band at anal angle.

*Hab.* Khásis. *Exp.*, ♂ 24, ♀ 26 millim.

4904. **Dichocrocis rigidalis**, *Snell. Trans. Ent. Soc.* 1890, p. 631.
Ravanoa strigulosa, *Swinh. A. M. N. H.* (6) xiv, p. 201.

♀. Head and thorax ochreous white striped with brown; abdomen orange, the base pale, with a lateral pair of brown spots; the anal tuft black; wings ochreous white. Fore wing with three brown bands on basal area; a discocellular brown band, with a streak from its upperside extending below the costa; an oblique brown postmedial band from subcostals to inner margin, joined at vein 2 by a curved band from the costa; a curved submarginal and a marginal band; cilia pale, with a brown line through them. Hind wing ochreous white, with large orange patch occupying the anal area; a short oblique subbasal brown fascia below the cell; a brown discocellular band continued across the orange patch as a curved line; two postmedial bands, which join and terminate at the orange patch; a curved submarginal band terminating at the orange patch; a marginal band not quite reaching anal angle; cilia pale, with a brown line through them.

*Hab.* Sikhim; Khásis; Shán States. *Exp.* 26 millim.

4905. **Dichocrocis zebralis**, *Moore, P. Z. S.* 1867, p. 91, pl. 7, fig. 12; *C. & S.* no. 4318.

Head and thorax white, the latter striped with black; abdomen orange, the basal segments white with paired lateral black spots and slight dorsal black specks on terminal segments. Fore wing white, with five outwardly oblique black bands on basal half, ending in points on inner margin, the outer four disposed somewhat in pairs; two pairs of inwardly oblique black bands on outer half, the first terminating on vein 2, the 2nd pair nearly reaching inner margin; a marginal black line. Hind wing orange-red, pale towards base; a black discocellular spot and streak from base below the cell; an apical and two submarginal spots; a fine white marginal line.

*Hab.* Sikhim; Khásis. *Exp.* 26–32 millim.

4906. **Dichocrocis nelusalis**, *Wlk. Cat.* xviii, p. 685.
Botys chlorophanta, *Butl. Ill. Het.* ii, p. 58, pl. 39, fig. 8.
Hedylepta straminea, *Moore, Lep. Ceyl.* iii, p. 278, pl. 180, fig. 5 *C. & S.* no. 4348.
Gadessa albifrons, *Moore, Lep. Ceyl.* iii, p. 279, pl. 180, fig. 6; *C. & S.* no. 4360.
Botys attemptalis, *Snell. Trans. Ent. Soc.* 1890, p. 590.
Gadessa subalbalis, *Warr. A. M. N. H.* (6) xvii, p. 103.

Dull grey, or in the female often bright straw-colour; abdomen with the segments slightly fringed with white, a dorsal black band on terminal segment. Fore wing with slightly curved antemedial fuscous line; a discocellular lunule; a sinuous postmedial line

slightly excurved between veins 5 and 2, then retracted to angle of cell. Hind wing with discocellular spot; a postmedial line running out to an angle on vein 2, then retracted to angle of cell and running obliquely to near anal angle; both wings with the cilia whitish, their bases black.

*Hab.* Japan; Sikhim; Nilgiris; Ceylon; Andamans; Pulo Laut; Borneo. *Exp.* 26 millim.

4907. **Dichocrocis megillalis**, *Wlk. Cat.* xviii, p. 700.
Botys sordidalis, *Snell. Trans. Ent. Soc.* 1890, p. 589.
Gadessa characteristica, *Warr. A. M. N. H.* (6) xvii, p. 103.

Brownish ochreous; fore legs, 3rd and terminal segments of abdomen banded with black. Fore wing with short basal line; oblique slightly sinuous antemedial black line; a speck in cell and discocellular spot; the postmedial line straight and broad from costa to vein 5, then narrower, bent outwards and crenulate between veins 5 and 2, retracted to below end of cell, and waved to inner margin. Hind wing with cell-spot; the postmedial line sinuous and much bent outwards between veins 5 and 2. Both wings with the margin suffused with fuscous, the base of cilia whitish.

Some specimens have a wedge-shaped black mark developed beyond lower angle of cell of fore wing between veins 5 and 3.

*Hab.* Sikhim; Khásis; Nágas; Borneo. *Exp.*, ♂ 22, ♀ 24–30 millim.

4908. **Dichocrocis credulalis**, *Snell. Trans. Ent. Soc.* 1890, p. 590.
Pleonectusa planalis, *Swinh. A. M. N. H.* (6) xiv, p. 208.

♂. Fuscous with a slight purple tinge; hind tarsi whitish. Fore wing with black antemedial line slightly angled on median nervure, the costal area beyond it tinged with ochreous; a black discocellular lunule; a postmedial black line expanding into a spot on costa, nearly straight to vein 3, then oblique. Hind wing with discocellular speck; a black medial line, straight and slightly oblique; both wings with fuscous marginal line; the cilia fuscous, with a pale line at base. Underside grey.

*Hab.* Sikhim; Khásis. *Exp.* 28 millim.

4909. **Dichocrocis surusalis**, *Wlk. Cat.* xviii, p. 695.
Botys subjunctalis, *Wlk. Cat.* xxxiv, p. 1404; *Moore, Lep. Ceyl.* iii, pl. 181, fig. 6; *C. & S.* no. 4140.
Botys triferalis, *Wlk. Cat.* xxxiv, p. 1428.
Botys semifascialis, *Snell. Tijd. v. Ent.* xxiii, p. 214, & xxvi, p. 131, pl. vii, figs. 12 & 12*a*.

Black-brown with a slight cupreous tinge. Fore wing with a subquadrate yellow spot on middle of costa, its edge sometimes indented; a yellow spot below origin of vein 3; a trifid yellow spot on costa before apex extending down to vein 6, and with a more or less well-developed speck on the costa before it.

*Hab.* Japan; Ceylon; Borneo. *Exp.* 24 millim.

b. *Hind tibiæ of male fringed with long hair on both sides.*

4910. **Dichocrocis xuthusalis**, *Wlk. Cat.* xviii, p. 691.
Botys onustalis, *Snell. Trans. Ent. Soc.* 1890, p. 587.

Fuscous brown; palpi pale at base; fore legs banded fuscous and white; abdomen with black band on subterminal segment, the tip black and white. Fore wing with oblique black subbasal and antemedial lines, the former with the outer edge, the latter with the inner edge pale; a discocellular black lunule; an oblique black postmedial line with pale outer edge, slightly sinuous below vein 2. Hind wing with black line from upper angle of cell to anal angle, edged by white on outer side below the cell, and almost met at lower angle of cell by a pale-edged black postmedial line. Both wings with a prominent white marginal line widening to anal angle of hind wing, and a black line at base of cilia which are fuscous. Underside grey.

*Hab.* Sikhim; Borneo. *Exp.* 28 millim.

## Genus **NACOLEIA.**

Nacoleia, *Wlk. Cat.* xix, p. 934 (1859).
Hedylepta, *Led. Wien. ent. Mon.* 1863, p. 409.
Blepharomastix, *Led. Wien. ent. Mon.* 1863, p. 422.
Pelycyntis, *Meyr. Trans. Ent. Soc.* 1884, p. 315.
Lotanga, *Moore, Lep. Ceyl.* iii, p. 344 (1886).
Thysanodesma, *Butl. Ill. Het.* vii, p. 96 (1889).
Aplomastix, *Warr. A. M. N. H.* (6) vi, p. 478 (1890).
Metasciodes, *Meyr. Trans. Ent. Soc.* 1894, p. 8.
Tylostega, *Meyr. Trans. Ent. Soc.* 1894, p. 457.
Macrospectrodes, *Warr. A. M. N. H.* (6) xvii, p. 94 (1896).
Idiusia, *Warr. A. M. N. H.* (6) xvii, p. 98.
Preneopogon, *Warr. A. M. N. H.* (6) xvii, p. 146.
Orthocona, *Warr. A. M. N. H.* (6) xviii, p. 214 (1896).

Type, *N. rhœoalis*, Wlk., from Australia.

*Range.* The tropical and subtropical zones.

Palpi upturned, reaching vertex of head, the 2nd joint broadly angled with scales, the 3rd short with a small triangular tuft in front; maxillary palpi usually slightly dilated with scales; frons rounded; antennæ of male ciliated; the patagia usually with a tuft of hair extending beyond the metathorax; tibiæ with the outer spurs usually half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with vein 3 from angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

Sect. I. Antennæ of male without tuft of scales at middle.

A. (Macrospectrodes). *Hind wing of male with a large hyaline vesicle on inner margin; patagia without spreading tuft of scales.*

4911. **Nacoleia subargentalis**, *Snell. Trans. Ent. Soc.* 1890, p. 579.

♂. Uniform glossy fuscous, the hind wing paler. Underside

of hind wing white, with dark discocellular spot and traces of postmedial line from costa to vein 3.

*Hab.* Sikhim. *Exp.* 30 millim.

B. *Hind wing of male with no vesicle on inner area.*

a. *Patagia of male with a tuft of scales extending beyond metathorax; hind tibia with the outer medial spur half the length of inner.*

a'. (Hedylepta). *Fore wing of male with no tufts of large scales in cell.*

4912. **Nacoleia barcalis**, *Wlk. Cat.* xix, p. 1001.
Deba milvinalis, *Swinh. P. Z. S.* 1885, p. 875, pl. 57, fig. 2; *Moore, Lep. Ceyl.* iii, pl. 183, fig. 11; *C. & S.* no. 4162.

Greyish brown; palpi pale at base. Fore wing slightly suffused with fuscous except on costal area; an obliquely curved antemedial black line; a discocellular speck; a postmedial black line diffused outwards, straight from costa to vein 3, then bent inwards to near origin of vein 2, bent outwards again, and with a diffused black patch in its sinus; cilia fuscous, white towards outer angle. Hind wing with discocellular speck; a postmedial line bent outwards and reduced to specks between veins 5 and 2; the cilia white. Underside greyish.

*Hab.* Khásis; Calcutta; Bombay; Poona; Nilgiris; Ceylon; Rangoon; Borneo. *Exp.* 36 millim.

4913. **Nacoleia niphealis**, *Wlk. Cat.* xviii, p. 638.
Botys epastalis, *Swinh. P. Z. S.* 1885, p. 874, pl. 57, fig. 13; *C. & S.* no. 4055.

Rufous; the palpi white below; abdomen of male with long lateral tufts from base, the anal tuft black. Fore wing with obliquely curved antemedial line; a speck in cell and line on discocellulars; a postmedial minutely dentate line excurved from below costa to vein 2, then retracted to lower angle of cell. Hind wing with discocellular speck; a minutely waved postmedial line excurved to vein 2, then retracted to angle of cell. Both wings with the cilia black at base, white at tips.

*Hab.* W. Africa; Bombay; Calcutta; Sikhim; Nágas; Nicobars. *Exp.* 24 millim.

4914. **Nacoleia tristrialis**, *Brem. Lep. Ost-Sib.* p. 68, pl. 6, fig. 7.
Hedylepta confusalis, *Warr. A. M. N. H.* (6) xvii, p. 98.
Hedylepta ochrifuscalis, *Warr. A. M. N. H.* (6) xvii, p. 98.

Differs from *pœonalis* in the postmedial line of fore wings being more distinct and evenly curved from costa to vein 2; no marginal series of dark specks; male with the anal tuft black; legs whitish.

*Hab.* Amur; Sikhim; Nágas; E. Pegu. *Exp.* 28 millim.

4915. **Nacoleia pœonalis**, *Wlk. Cat.* xviii, p. 639.
Botys nilusalis, *Wlk. Cat.* xviii, p. 685.
Botys dairalis, *Wlk. Cat.* xviii, p. 698.
Botys bianoralis, *Wlk. Cat.* xix, p. 1001.

Botys decisalis, *Wlk. Cat.* xxxiv, p. 1451.
Botys prætcritalis, *Wlk. Cat.* xxxiv, p. 1405; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 3; *C. & S.* no. 4113.
Botys korndorfferi, *Snell. Midd.-Sum.* iv, *Lep.* p. 62.
Acharana similis, *Moore, Lep. Ceyl.* iii. p. 286, pl. 180, fig. 12.
Charema fuscipennis, *Swinh. A. M. N. H.* (6) xiv, p. 202.
Pachyzancla granulata, *Warr. A. M. N. H.* (6) xviii, p. 174.

♂. Fuscous grey, with a slight yellowish-brown tinge; patagial tufts pale. Fore wing with slightly curved antemedial black line; a black discocellular spot; the postmedial line of both wings oblique from costa to vein 2, then retracted to below end of cell and excurved again; a series of marginal black specks. Hind wing darker fuscous, with marginal black line, the cilia sometimes white at tips. Underside pale.

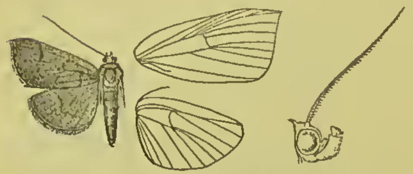

Fig. 182.—*Nacoleia pœonalis*, ♂. 1/1.

♀ much more ochreous.

*Hab.* Sierra Leone; Japan; Sikhim; Khásis; Nágas; Ceylon; E. Pegu; Shán States; Borneo; Java; Flores. *Exp.* 24 millim.

4916. **Nacoleia stigmatalis**, *Warr. A. M. N. H.* (6) xvii, p. 101.

♀. Ochreous brown suffused with fuscous; palpi blackish, white below. Fore wing with obliquely sinuous antemedial dark line; prominent ochreous spot in cell and reniform discocellular mark. Both wings with a postmedial line oblique and minutely dentate from costa to vein 2, then bent inwards to below end of cell and sinuous to inner margin, its outer edge defined by ochreous. Hind wing with discocellular spot; cilia of both wings grey, with fuscous line at base.

*Hab.* Khásis. *Exp.* 26 millim.

4917. **Nacoleia annubilata**, *Swinh. A. M. N. H.* (6) xiv, p. 203.

♂. Grey, thickly irrorated with black; abdomen ringed with white. Fore wing with traces of sinuous antemedial line; a dark speck in cell; both wings with dark discocellular spot; a sinuous postmedial line retracted at vein 2 and with diffused fuscous inside it; faint traces of a submarginal line; a marginal series of dark specks and a pale line at base of cilia. Underside much greyer, with the postmedial line represented by specks in the interspaces.

*Hab.* Khásis; Tenasserim. *Exp.* 24 millim.

4918. **Nacoleia aurantifascialis**, n. sp.

♀. Black-brown; palpi white below; legs banded black and white. Fore wing with very broad golden-yellow postmedial band, its inner edge running from middle of costa to outer angle, its outer edge curved and ending on outer margin at vein 3.

*Hab.* Mao, Manipur (*Doherty*). *Exp.* 30 millim. Type in coll. Elwes.

4919. **Nacoleia mellealis**, *Swinh. Trans. Ent. Soc.* 1890, p. 282.

♀. Ochreous slightly tinged with fulvous; head and collar fuscous; palpi white below. Fore wing with the costal area suffused with fuscous; an antemedial dark speck on median nervure; an ochreous dark-edged discocellular lunule; both wings with a minutely dentate postmedial line bent outwards between veins 5 and 2; the marginal area broadly suffused with fuscous, narrowing to anal angle of hind wing.

*Hab.* Ganjam; Rangoon. *Exp.* 22 millim.

4920. **Nacoleia cuprealis**, *Moore, P. Z. S.* 1877, p. 616, pl. 60, fig. 13; *C. & S.* no. 4268.
Platamoma binotalis, *Warr. A. M. N. H.* (6) xviii, p. 177.

♀. Fuscous brown with a slight purplish tinge; abdomen orange except the basal segments; the anal tuft black and white at base. Fore wing with curved antemedial black line; a discocellular lunule; a minute dentate postmedial line arising from a pale-edged spot on costa, nearly straight to vein 2, then recurved to angle of cell; a marginal series of specks. Hind wing with discocellular lunule; a postmedial line nearly straight from costa to vein 2, then recurved nearly to angle of cell and oblique to near anal angle; a marginal black line and line through the cilia, which are grey at tips.

♂. Fore wing with the apex more produced.

*Hab.* Khásis; Nágas; Upper Burma; Andamans. *Exp.* 26 millim.

4921. **Nacoleia fuscifimbrialis**, n. sp.

♂. Pale ochreous irrorated with rufous; palpi blackish at sides. Fore wing with the base of costa and a subbasal line dark; an obliquely sinuous antemedial line; a rufous annulus in cell and reniform discocellular mark with a line from it to inner margin, emitting a spur to join the antemedial line and another spur to join the irregularly crenulate postmedial line; a crenulate submarginal line with diffused fuscous on it; the cilia fuscous. Hind wing white; the apical part of outer area pale ochreous, with a dark line on its inner edge from vein 6 to 2 and the margin and cilia fuscous.

♀ with the marginal area of fore wing fuscous except at apex.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 24 millim. Type in B. M.

4922. **Nacoleia vulgalis**, *Guen. Delt. & Pyr.* p. 202, pl. 6, fig. 8; *C. & S.* no. 4349.
Botys mœliusalis, *Wlk. Cat.* xviii, p. 703.
Botys reductalis, *Wlk. Cat.* xxxiv, p. 1412.

Fulvous yellow; abdomen ringed with white; wings suffused with fuscous except the costa of fore wing. Fore wing with obliquely curved antemedial black line; a speck in cell and discocellular spot; the postmedial line arising from a black spot on the

costa, nearly straight to vein 2, then retracted to lower angle of cell and slightly angled on vein 1. Hind wing with discocellular spot; the postmedial line bent outwards between veins 5 and 2, then retracted to lower angle of cell; both wings with marginal black line and line at base of cilia, which are fuscous on fore wing, white on hind wing.

Some specimens have hardly any fuscous suffusion.

*Hab.* Neotropical, Ethiopian, and Oriental regions. *Exp.* 20 millim.

4923. **Nacoleia diemenalis**, *Guen. Delt. & Pyr.* p. 203.
Pyrausta absistalis, *Wlk. Cat.* xvii, p. 311; *C. & S.* no. 4338.
Asopia lydialis, *Wlk. Cat.* xvii, p. 374.
Botys ustalis, *Led. Wien. ent. Mon.* 1863, pp. 375, 471, pl. x, fig. 14.
Pyralis incertalis, *Wlk. Cat.* xxxiv, p. 1247.
Hedylepta pyraustalis, *Snell. Midd.-Sum.* iv, *Lep.* p. 71.

Differs from *vulgalis* in the yellow areas being brighter; the thorax and abdomen fuscous, the latter tinged with white. Fore wing with a fuscous subbasal band, leaving a yellow band inside the antemedial line; the medial area with fuscous on median nervure and in the sinus of the postmedial line, or wholly fuscous except costal area; the outer area of both wings fuscous, leaving a broad yellow band beyond the postmedial line sometimes reduced on fore wing to patches at costa and on inner margin; whilst in the yellower specimens there is often a more or less developed marginal yellow band on both wings.

*Hab.* S. Africa; Formosa; Ceylon; Burma: Andamans; Sumatra; Java; Celebes; Fiji. *Exp.* 20 millim.

b′. (Tylostega). *Fore wing of male with a tuft of large scales in cell above, and very large fan of scales in cell below.*

4924. **Nacoleia valvata**, *Warr. A. M. N. H.* (6) xvii, p. 104.

♂. Reddish brown, suffused and irrorated with black; palpi whitish below; abdomen mostly ochreous. Fore wing with the tuft in cell dark; a postmedial black line sinuous from costa to vein 5, then retracted to below end of cell, obsolescent and more prominent again from vein 2 to inner margin; the basal and outer areas most suffused with black, the medial area brown; a marginal series of black specks. Hind wing ochreous; a dark basal patch; a discocellular line; a postmedial sinuous line excurved between veins 5 and 2; a dark marginal line on apical half and diffused black patch on anal area.

*Hab.* Khásis. *Exp.* 22 millim.

b. *Patagia of male short.*

a'. (Blepharomastix). *Palpi and maxillary palpi of male normal; hind tibia with the outer spurs minute.*

4925. **Nacoleia benepictalis**, *Warr. A. M. N. H.* (6) xvii, p. 99.

♂. Head, thorax, and abdomen ochreous, heavily marked with fuscous black; antennæ black, the basal joint white. Fore wing ochreous, the basal area fuscous black, conjoined to a bilobate patch in end of cell and enclosing an irregular antemedial ochreous band not reaching costa, and a spot in end of cell; the medial part of costa fulvous; a waved postmedial black band excurved between veins 5 and 2, and conjoined to the very irregular submarginal markings, which consist of irregular patches on apical area and near outer angle connected by an irregularly dentate line and sending a streak below apex and three at middle to the cilia. Hind wing with the base dark; a discocellular spot; a postmedial irregularly waved line bent outwards between veins 5 and 2; an irregularly dentate submarginal band expanding into a large patch on apical area, connected with the postmedial line below middle and at anal angle, and sending some streaks to the cilia.

*Hab.* Khásis. *Exp.* 30 millim.

4926. **Nacoleia insolitalis**, *Wlk. Trans. Ent. Soc.* (3) i, p. 125.

♂. Orange; paired black spots on patagia and metathorax; the extremity of abdomen black. Fore wing with a few black specks; a black spot at base of costa; an oval patch from middle of costa to vein 2; an apical black patch suffused with grey; small black patches on inner margin before middle and towards outer angle. Hind wing with irregular medial black band; an apical patch and spot near anal angle.

*Hab.* Camorta, Nicobars; Borneo. *Exp.* 28 millim.

4927. **Nacoleia scitalis**, *Swinh. P. Z. S.* 1885, p. 869; *C. & S.* no. 4431.

White; patagia with black-brown spots; metathorax with a black-brown band; abdomen slightly ringed with brown, and with black-brown bands on third and terminal segments. Fore wing with brown spot on base of costa; three subbasal spots; an antemedial curved line with some diffused brown above inner margin between it and the postmedial line; a large annulus in cell and discocellular elliptical ring-spot. Hind wing with discocellular spot. Both wings with the postmedial line straight from costa to outer margin at vein 3, then retracted to lower angle of cell; a marginal line and line through the cilia.

*Hab.* Bombay. *Exp.* 14 millim.

4928. **Nacoleia œaxalis**, *Wlk. Cat.* xviii, p. 718.
Thysanodesma discalis, *Warr. A. M. N. H.* (6) xvii, p. 140.

♂. Differs from *cyanealis* (p. 321) in being more fulvous yellow. Fore wing with the basal area suffused with fuscous; a quadrate white spot in end of cell; the postmedial line not excurved towards inner margin, and the area beyond it fuscous except a yellow spot on costa and another at outer angle. Hind wing with the basal half yellow, with a discocellular black spot; a sinuous medial line bent outwards between veins 5 and 2; the outer area fuscous, with some yellow on margin below middle.

*Hab.* Khásis; Borneo. *Exp.* 16 millim.

4929. **Nacoleia heliaula**, *Meyr. Trans. Ent. Soc.* 1894, p. 8.

♀. Fulvous yellow; palpi white below, fuscous above. Fore wing with three black spots on basal part of costa, followed by two annuli and a black spot before apex; an irregularly sinuous antemedial line; an annulus in cell, with a quadrate white spot between it and the incomplete reniform discocellular spot; the postmedial line minutely dentate from costa to vein 2, then retracted to below angle of cell and sinuous to inner margin; the marginal area slightly more fulvous; black patches on the cilia at apex and middle. Hind wing with postmedial line excurved from costa to vein 2, then retracted to below angle of cell; the apical area fulvous; a black patch at middle of cilia.

*Hab.* Shán States; Momeit, Burma. *Exp.* 18 millim.

4930. **Nacoleia fusalis**, *Warr. A. M. N. H.* (6) xvii, p. 142.

♀. Fulvous yellow; head, thorax, and abdomen slightly suffused with fuscous; palpi white below, fuscous at sides. Fore wing slightly suffused with fuscous, more strongly suffused below costa to beyond middle and on almost the whole outer area; a slightly sinuous antemedial black line; an annulus in cell and discocellular reniform spot; the discal area and apical part of costa clear ochreous; a postmedial sinuous line bent inwards at vein 2 to below angle of cell. Hind wing ochreous, with discocellular annulus and line from it to inner margin; a postmedial sinuous line ending at anal angle; an apical fuscous patch continued as a fuscous band on the postmedial line.

*Hab.* Khásis. *Exp.* 16 millim.

4931. **Nacoleia tampiusalis**, *Wlk. Cat.* xviii, p. 704.
Botys ilusalis, *Wlk. Cat.* xviii, p. 705; *C. & S.* no. 4057.
Aplomastyx mimula, *Hmpsn. Ill. Het.* viii, p. 138, pl. 155, fig. 23.

Ochreous irrorated with fuscous; abdomen of male with a black spot on anal segment. Fore wing with some fuscous marks at base; a curved antemedial black line; a small annulus in cell and elliptical discocellular annulus; a postmedial line arising from a

black speck on costa, straight to vein 5, where it is slightly bent outwards and at vein 2 retracted to lower angle of cell, then excurved again. Hind wing with antemedial line; the postmedial line consisting of three lines in echelon ending at anal angle. Both wings with maculate marginal black line and line at base of cilia.

*Hab.* N.W. Himalayas; Sikhim; Nilgiris; Borneo. *Exp.* 14–22 millim.

4932. **Nacoleia major**, *Butl. Ill. Het.* vii, p. 96, pl. 135, fig. 5.

Grey thickly irrorated with fuscous. Fore wing with ill-defined subbasal and antemedial sinuous lines; an annulus in cell and discocellular lunule; a series of black specks on medial part of costa. Hind wing with discocellular speck. Both wings with postmedial oblique line highly excurved between veins 5 and 2; the outer area suffused with fuscous; a marginal series of black specks and line through the cilia.

*Hab.* Dharmsála; Sikhim; Khásis. *Exp.* 22 millim.

4933. **Nacoleia ossea**, *Butl. Ill. Het.* vii, p. 96, pl. 135, fig. 6.

Whitish suffused with fuscous. Fore wing with the basal area darkest; a short subbasal dark line; a spot on inner margin; a sinuous antemedial line; an annulus in cell and large discocellular lunule; hind wing with discocellular spot. Both wings with the postmedial line arising from a black spot on costa of fore wing, nearly straight to vein 2, where it has a spot on it, then retracted to lower angle of cell and with a spot on it below the cell; a marginal series of specks.

*Hab.* Dharmsála. *Exp.* 24 millim.

4934. **Nacoleia charesalis**, *Wlk. Cat.* xviii, p. 709.
Botys molusalis, *Wlk. Cat.* xix, p. 993; *Forsayeth, Trans. Ent. Soc.* 1884, p. 417 (larva); *C. & S.* no. 4366.

♀. Dull fuscous brown; head and thorax blackish. Fore wing with the basal costal area blackish; a sinuous antemedial line; an annulus in the cell and discocellular pale-centred reniform spot; a sinuous postmedial line excurved between veins 5 and 2, then retracted to near angle of cell; slight fuscous suffusion on outer area below apex and at outer angle. Hind wing with discocellular spot; a sinuous postmedial line bent outwards between veins 5 and 2, then retracted to near angle of cell; both wings with crenulate marginal line.

*Larva* grass-green with the head black, and lateral black marks on edges of thoracic segments.

*Hab.* Mhow; Ceylon; Borneo; Sumbawa. *Exp.* 22 millim.

4935. **Nacoleia eximialis,** *Warr. A. M. N. H.* (6) xvii, p. 141.

♂. Yellowish white, mostly suffused and irrorated with black; palpi white below; abdomen ringed with black. Fore wing with sinuous black antemedial line; a black annulus filled in with fuscous in cell and pale-centred reniform discocellular mark, the space between the two yellowish white; a sinuous postmedial line arising from a black spot on a pale costal streak and retracted on vein 2 to angle of cell. Hind wing with double discocellular mark and line from it to inner margin; a sinuous postmedial line from costa to vein 2; the area between the two lines pale; a pale marginal patch below middle.

*Hab.* Khásis. *Exp.* 16 millim.

4936. **Nacoleia phaleasalis,** *Wlk. Cat.* xviii, p. 713.

Pale, slightly suffused and irrorated with fuscous; abdomen banded with fuscous. Fore wing with some fuscous at base; an outwardly oblique sinuous antemedial line; superposed annuli forming a figure-of-8 mark in and below middle of cell; a discocellular annulus and sinuous postmedial line arising from a black spot on costa and expanding into a patch on inner margin; diffused conjoined fuscous patches at apex and middle of outer margin; a marginal series of specks. Hind wing with discocellular annulus; a sinuous postmedial line excurved between veins 6 and 2, then retracted to below angle of cell; a marginal series of specks.

*Hab.* Khásis; Borneo. *Exp.* 20 millim.

b'. (Preneopogon). *Palpi of male fringed below with long hair enclosed between the 1st and 2nd joints, the 2nd and 3rd joints being doubled back below; maxillary palpi greatly dilated with hair; fore femora with a tuft of long hair from base; fore and mid femora and tibiæ clothed with rough hair; a large expansible anal tuft.*

4937. **Nacoleia barbata,** *Warr. A. M. N. H.* (6) xvii, p. 146.

♂. Pale grey, suffused with pale brown and irrorated with black; abdomen ringed with black, the anal tuft ochreous. Fore wing with curved antemedial black line; incomplete annuli in cell and on discocellulars; two semicircles on costa beyond middle and two specks towards apex; an oblique waved postmedial line bent inwards below vein 2. Hind wing with black speck in cell; an oblique waved postmedial line bent outwards between veins 5 and 2. Both wings with the outer area suffused with fuscous; a marginal series of specks and a line through the cilia.

*Hab.* Khásis. *Exp.* 22 millim.

SECT. II. (*Nacoleia*). Antennæ of male with the shaft thickened at middle by slight tufts of scales on upperside; mid tibiæ clothed with rough hair.

4938. **Nacoleia marionalis**, *Wlk. Cat.* xix, p. 930.
Danaga biformis, *Butl. Ill. Het.* vii, p. 94, pl. 135, figs. 2, 3.

♂. Fuscous; palpi below and frons white; basal segment of abdomen yellow; the anal segment orange, with black and white marks. Fore wing with alternating black and white costal spots; an obscure sinuous antemedial line; an annulus in cell; a discocellular lunule; the medial area mostly yellow, outwardly defined by the retracted portion of the postmedial line below the cell. Hind wing dark at base; the medial area yellow, with a dark discocellular spot; the postmedial sinuous line bent outwards between veins 5 and 2; outer area of both wings fuscous; the cilia pale towards apices and outer and anal angles.

♀. Yellower; fore wing with the sinuous antemedial line, the annulus, and discocellular lunule prominent; the postmedial line prominent, sinuous from the costa to vein 2, then retracted to lower angle of cell; yellow patches at outer angle of fore wing and middle of outer area of hind wing.

*Hab.* Dharmsála; Sikhim; Burma; Borneo. *Exp.* 20 millim.

4939. **Nacoleia præteritalis**, *Wlk. Cat.* xvii, p. 372; *C. & S.* no. 4358.

♂. Differs from *marionalis* in the frons and extremity of abdomen being dark. Fore wing with the medial area dark; an ochreous patch in the sinus of the postmedial line. Hind wing with the medial yellow area much suffused with fuscous; the discocellular spot connected with the inner margin by a line; the postmedial line less retracted below vein 2.

*Hab.* Punjab; Ceylon; Burma. *Exp.* 14–20 millim.

4940. **Nacoleia cyanealis**, *Wlk. Cat.* xvii, p. 405.
Metasia zanclogramma, *Meyer*, *Trans. Ent. Soc.* 1894, p. 8.

Differs from *marionalis* in being pale rufous suffused with fuscous; palpi and frons yellowish; abdomen with a dorsal black band before the anal tuft. Fore wing with the markings prominent; two postmedial annuli on costa. Hind wing with oblique antemedial line and postmedial line bent outwards at vein 5 and terminating at anal angle. Both wings with a marginal maculate line and line through the cilia.

*Hab.* Japan; Kulu; Nilgiris; Ceylon; Shán States; Borneo. *Exp.* ♂ 18, ♀ 26 millim.

4941. **Nacoleia tiasalis**, *Wlk. Cat.* xix, p. 994; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 20; *C. & S.* no. 4359.
Asopia microchrysalis, *Wlk. Cat.* xxxiv, p. 1306.

Differs from *cyanealis* in the fore wing having no annuli on

the costa; the antemedial line conjoined to the annulus in cell; the postmedial line straight from costa to vein 5.

*Hab.* Ceylon; Australia. *Exp.* 14 millim.

4942. **Nacoleia commixta,** *Butl. A. M. N. H.* (5) iv, p. 453; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 24; *C. & S.* no. 4241.
Nacoleia costisignalis, *Moore, Lep. Ceyl.* iii, p. 273; *C. & S.* no. 4357.

Head, thorax, and abdomen whitish and yellow, with extensive black markings; wings yellow, with the discal areas whitish. Fore wing with the basal area suffused with fuscous; a black spot on costa near base; a sinuous antemedial black line, with the area beyond it below median nervure suffused with fuscous; an annulus in cell, and discocellular lunule with a black annulus on the costa above it; a postmedial waved line arising from a black spot on the costa, excurved between veins 5 and 2, then retracted to angle of cell, the area in its sinus and the greater part of the area beyond it, except towards apex, suffused with fuscous. Hind wing with the base fuscous; an imperfect discocellular lunule; a waved postmedial line excnrved between veins 6 and 5, then running as a diffused band with another diffused band inside it to anal angle; a diffused fuscous patch on apical area extending down to vein 3. Both wings with some black specks on the margiu and a line through the cilia.

*Hab.* Japan; Dharmsála; Nágas; Nilgiris; Ceylon. *Exp.* 18 millim.

## Genus GONIORHYNCHUS, nov.

Type, *G. gratalis*, Led.

*Range.* Japan; China; N.E. India; Burma; Java.

Palpi npturned, the 2nd joint broadly and triangularly scaled in front, the 3rd short, naked, and blunt; maxillary palpi filiform; frons rounded; tibiæ with the outer spurs two-thirds length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9. Hind wing with the cell short; veins 3, 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8.

Sect. I. Antennæ of male with the shaft smooth and ciliated; fore wiug with no fovea at base of median nervure.

4943. **Goniorhynchus gratalis,** *Led. Wien. ent. Mon.* 1863, p. 475, pl. 11, fig. 18.
Botys minualis, *Wlk. Cat.* xxxiv, p. 1449.

Bright yellow; tips of palpi, frons, and end of abdomen black-brown. Fore wing with the costal area black-brown, conjoined to two spots in the cell, the outer with white centre, also to a large white-centred discocellular patch; an indistinct, nearly straight antemedial line; a more prominent postmedial liue bent outwards between veins 5 and 2 and dentate on vein 5; the margin and

cilia black-brown, widening at apex and outer angle. Hind wing with discocellular spot; a postmedial line bent outwards between veins 5 and 2 and dentate on vein 5; the margin and cilia black-brown, slightly expanding at vein 2.

*Hab.* Sikhim; Khásis; Margharita, Assam; Tenasserim; Java. *Exp.* 18 millim.

SECT. II. Antennæ of male annulated with rings at the joints. Fore wing with a fovea covered with hair at base of median nervure.

4944. **Goniorhynchus plumbeizonalis**, n. sp.

♂. Ochreous; head and collar brownish; palpi white below. Fore wing with the costa brownish; a slightly waved dark antemedial line; a prominent black discocellular lunule; the postmedial line bent outwards at costa and between veins 5 and 2, where it is minutely dentate, then retracted to angle of cell and excurved again; the outer area leaden grey. Hind wing with minutely dentate ante- and postmedial lines, the latter running into the outer leaden-grey area at vein 2.

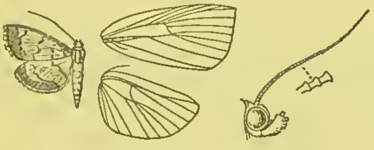

Fig. 183.—*Goniorhynchus plumbeizonalis*, ♂. ½.

*Hab.* Khásis; Tenasserim (*Doherty*). *Exp.* 20 millim. Type in B. M.

4945. **Goniorhynchus flaviguttalis**, *Warr. A. M. N. H.* (6) xvii, p. 140.

♂. Dark fuscous suffused with grey; palpi white below; abdomen ringed with white. Fore wing with the fovca white, a yellow speck in cell above it; a quadrate yellow spot in end of cell conjoined to an elongate patch below the cell; a large triangular yellow patch on costa beyond middle extending down to vein 3 and traversed by the sinuous black postmedial line, which at vein 3 is retracted to lower angle of cell and crosses the yellow patch below the cell. Hind wing with yellow speck below the cell; a large irregular medial yellow patch from costa to below end of cell, with the incomplete postmedial line beyond it retracted at vein 3 and conjoined to the patch; cilia of both wings grey and fuscous. Underside whitish.

*Hab.* Khásis. *Exp.* 20 millim.

## Genus DEBA.

Deba, *Wlk. Cat.* xxxiv, p. 1494 (1865).
Phycidicera, *Snell. Midd.-Sum.* iv (i), 8, *Lep.* p. 71 (1880).

Type, *D. surrectalis*, Wlk.

*Range.* N.E. India; Ceylon; Borneo; Celebes.

Palpi upturned, the 2nd joint reaching vertex of head and

slightly fringed in front, with a tuft of hair from extremity hiding the 3rd joint, which is short and blunt; maxillary palpi filiform; frons rounded. Antennæ of male with a small tuft of hair in the form of a vesicle from end of 1st joint, surrounded by a large vesicle formed of nearly conjoined pectinations on the basal part of shaft, which is then serrated for a short distance; tegulæ of male with long tufts of hair extending beyond the metathorax; the two basal segments of abdomen with long hair on dorsum; tibiæ with the outer spurs about half the length of inner. Fore wing with the costa arched towards apex; the outer margin obliquely rounded; veins 3, 4, 5 from angle of cell; 7 approximated to 8, 9 for about one-third length; 10 also approximated to 8, 9. Hind wing with vein 3 from angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

4946. **Deba surrectalis**, *Wlk. Cat.* xxxiv, p. 1495; *C. & S.* no. 4164.
Phycidicera salebrialis, *Snell. Tijd. v. Ent.* xxiii, p. 228, & xxvii, p. 37, pl. 3, fig. 6.

♂. Brown suffused with fuseous; the patagial tufts paler; the anal tuft black. Fore wing with sinuous antemedial black line; the medial costal area pale; a black speck in eell and discocellular bar; the postmedial line blaek, straight from costa to vein 2, then retracted nearly to the cell; the cilia brown, white-tipped near outer angle of fore wing and on hind wing. Underside greyer, with the postmedial line represented by a sinuous series of black specks nearer the margin.

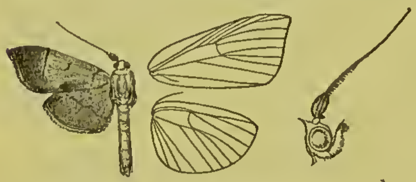

Fig. 184.—*Deba surrectalis*, ♂. 1/1.

*Hab.* Nágas; Ceylon; Celebes. *Exp.* 30 millim.

## Genus CERATARCHA.

Ceratarcha, *Swinh. A. M. N. H.* (6) xiv, p. 200 (1894).

Type, *C. umbrosa*, Swinh.
*Range.* N.E. India.

Palpi upturned, the 2nd joint broadly and triangularly sealed in front, the 3rd short, blunt, and naked; maxillary palpi filiform; frons rounded; antennæ of male annulate; tibiæ with the outer spurs half the length of the inner, mid tibiæ somewhat roughly sealed. Fore wing with the eosta arehed towards apex; the outer margin excised below apex; veins 3 and 5 from close to angle of eell; 7 and 10 approximated to 8, 9. Hind wing with the outer margin excised below apex; the cell short and veins 4, 5 approximated for a short distance; 6, 7 from upper angle. 7 anastomosing with 8.

4947. **Ceratarcha umbrosa**, *Swinh. A. M. N. H.* (6) xiv, p. 200.

♂. Ochreous brown, the wings striated with black. Fore wing with indistinct subbasal and antemedial lines; a prominent black spot in cell and larger spot at end of it; a sinuous postmedial line sharply recurved along vein 2, then wider, the area beyond it much browner. Hind wing with black spot at end of cell, with prominent black irroration below it; a postmedial black line highly excurved and minutely dentate between veins 5 and 2; the outer area browner. Both wings with marginal series of black spots and white line.

Fig. 185.—*Ceratarcha umbrosa*, ♂. 1/1.

♀ much more uniformly suffused with fuscous and with the markings fuscous.

*Hab.* Sikhim; Khásis; Nágas. *Exp.* 34 millim.

## Genus BOTYODES.

Botyodes, *Guen. Delt. & Pyr.* p. 320 (1854).
Endocrossis, *Meyr. Trans. Ent. Soc.* 1889, p. 515.

Type, *B. asialis*, Guen.

*Range.* Oriental region; New Guinea.

Palpi upturned and reaching vertex of head; the 2nd joint broadly rounded with scales in front; the 3rd naked, short, and blunt; maxillary palpi filiform; frons rounded: antennæ of male minutely ciliated; mid tibiæ fringed on outer side with hair; hind tibiæ with tufts of hair on outer side at base and extremity; the outer spurs half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 closely approximated to 8, 9 for about one-third length. Hind wing with the cell short; veins 3, 4, 5 approximated for a short distance; 6, 7 from upper angle or shortly stalked, 7 anastomosing with 8.

SECT. I. (*Botyodes*). Antennæ of male with four teeth on the basal joint enclosing a hollow; mid femora with a small grooved tuft at middle.

4948. **Botyodes asialis**, *Guen. Delt. & Pyr.* p. 321; *Moore, Lep. Ceyl.* iii, pl. 183, figs. 1, 1 *a* (larva); *C. & S.* no. 4034.

Orange-yellow; male with the anal tuft black. Fore wing with fulvous speck below median nervure near base; an oblique maculate fulvous antemedial line; a speck in cell and discocellular ocellus; an interrupted sinuous postmedial line inwardly oblique from vein 5 to 2; a highly sinuous submarginal line, with the area beyond it fulvous except at apex. Hind wing with discocellular

ocellus; a postmedial sinuous line highly bent outwards between veins 5 and 3; the marginal area fulvous with a grey tinge, narrowing to anal angle and with its inner edge sinuous; both wings with the cilia fuscous, grey at tips.

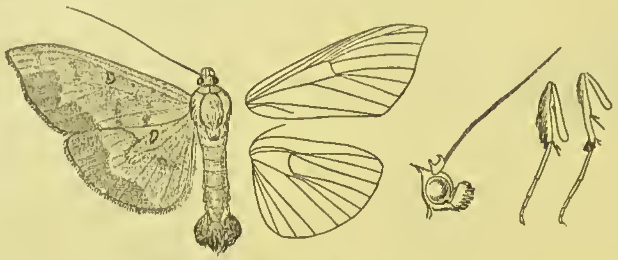

Fig. 186.—*Botyodes asialis*, ♂. 1/1.

*Larva* short and thick; olive-green with reddish lateral band; small hair-bearing dorsal and sublateral and two series of larger lateral black spots; head black, the vertex yellow. *Pupa* green, with short anal point and antennal sheath. Food-plant, *Ficus*.

*Hab.* Baluchistan; throughout India, Ceylon, and Burma; Borneo. *Exp.* 50 millim.

4949. **Botyodes principalis**, *Leech, Entom.* xxii, p. 69, pl. 3, fig. 9.
Botyodes maculalis, *Swinh. A. M. N. H.* (6) xiv, p. 198.

Differs from *asialis* in being sulphur-yellow. Fore wing with the postmedial line reduced to specks, slightly sinuous and more regularly inwardly oblique; the submarginal line only represented by diffused fuscous patches on the inner side of the dark fulvous marginal area. Hind wing with dark discocellular speck; the postmedial line with its sinus dentate and with diffused fuscous patches towards costa and inner margin; a highly dentate submarginal line; a small fulvous apical patch, with fuscous patch on its inner edge; a series of dark specks close to the margin.

*Hab.* Japan; Khásis. *Exp.* 44 millim.

SECT. II. (*Endocrossis*). Antennæ of male with the basal joint normal; mid femora without the grooved tuft.

A. *Hind wing of male with the inner area more or less clothed with long rough hair above and below.*

4950. **Botyodes flavibasalis**, *Moore, P. Z. S.* 1867, p. 96; *Felder, Reis. Nov.* pl. 135, fig. 41; *C. & S.* no. 4036.

♂. Orange; the tibiæ, palpi, collar, and two basal segments of abdomen with black spots; anal tuft pale yellow. Fore wing with basal black spot; a nearly erect antemedial black line usually interrupted at middle; a grey-brown black-edged discocellular

band; a broad vinous grey-brown marginal band sending a tooth inwards along vein 2, often conjoined to the discocellular band, and with a black line on its inner edge and traces of a fulvous line on it. Hind wing with a similar marginal band with regular inner edge and narrowing to anal angle.

The rough hair on inner area of hind wing is very much more developed in specimens from Sumatra and New Guinea than in the typical race from India and Burma.

*Hab.* Sikhim; Assam; Calcutta; Burma; Sumatra; New Guinea. *Exp.* 36 millim.

B. *Hind wing of male without rough hair on inner area.*

4951. **Botyodes rufalis**, n. sp.

♂. Orange fulvous; legs whitish on outer side; anal tuft blackish. Fore wing with the basal and outer areas purplish rufous, the medial area orange-yellow; an antemedial maculate rufous line; a speck in cell and discocellular spot; a maculate postmedial line bent inwards at vein 2 to below angle of cell; the inner edge of outer area sinuous; an orange-yellow apical patch. Hind wing orange-yellow, with discocellular spot; a medial rufous line bent outwards between veins 5 and 2; the outer area purplish rufous, with slightly sinuous inner edge. Underside yellow, the outer area dull purplish, with yellow apical patch to fore wing.

*Hab.* Tenasserim (*Doherty*). *Exp.* 36 millim. Type in coll. Druce.

4952. **Botyodes caldusalis**, *Wlk. Cat.* xviii, p. 650; *C. & S.* no. 4049.

Orange. Fore wing with the basal two-thirds of costa suffused with fulvous; an obliquely sinuous antemedial fuscous line; a speck in cell and discocellular lunule; a maculate postmedial line slightly bent outwards between veins 5 and 2, then retracted to near lower angle of cell; a curved submarginal maculate line. Hind wing with discocellular spot; the postmedial line diffused below costa, maculate and bent outwards between veins 5 and 2, then retracted to near origin of vein 2; a maculate sinuous submarginal line; cilia of both wings fuscous.

*Hab.* Sikhim; Assam; Burma; Java. *Exp.* 34 millim.

4953. **Botyodes patulalis**, *Wlk. Cat.* xxxiv, p. 1405; *C. & S.* no. 4070.

Golden yellow; palpi above, sides of frons, and shoulders black. Fore wing with the basal half of costa fuscous; a fuscous spot in cell and a large discocellular lunule; a dark submarginal sinuous line bounding a dark rufous apical patch, then running out to the margin and enclosing a small quadrate rufous patch at outer angle. Hind wing with discocellular fuscous spot; an indistinct line bounding a small apical rufous patch, and traces of a patch on vein 2.

*Hab.* Dharmsála; Sikhim; Khásis. *Exp.* 40 millim.

## Genus PRORODES.

Prorodes, *Swinh. A. M. N. H.* (6) xiv, p. 205 (1894).

Type, *P. mimica*, Swinh.
*Range.* N.E. India; Burma.

Palpi upturned, the 2nd and 3rd joints conically scaled in female, the 3rd in male broad, hollowed out, and enclosing a tuft of hair; maxillary palpi dilated with scales; frons rounded; antennæ of male with the base of shaft excised, then toothed; tibiæ with the outer spurs about half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 curved and approximated to 8, 9. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

4954. **Prorodes mimica**, *Swinh. A. M. N. H.* (6) xiv, p. 205.
Notarcha triparalis, *Warr. A. M. N. H.* (6) xvii, p. 102.

♂. Fuscous brown, irrorated with brownish-ochreous scales. Fore wing with indistinct curved antemedial series of dark specks; a white speck in cell and small spots on discocellulars and below end of cell; a postmedial series of white specks, the three below costa small dentate marks, the small specks between veins 5 and 2 nearer the margin, and the two above inner margin retracted to below angle of cell. Hind wing with pale discocellular speck; a pale maculate postmedial line, highly bent outwards between veins 5 and 2 and ending near anal angle; a fine pale line at base of cilia. Underside suffused with grey.

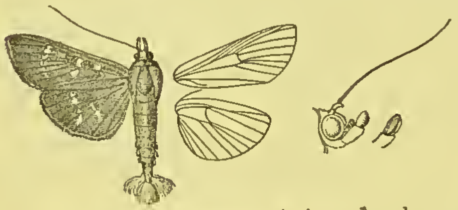

Fig. 187.—*Prorodes mimica*, ♂. 1/1.

*Hab.* Khásis; Nágas; Tenasserim. *Exp.* 34 millim.

## Genus SYLEPTA.

Sylepta *Hübn. Verz.* p. 356 (? 1818).
Notarcha, *Meyr. Trans. Ent. Soc.* 1884, p. 310 (præocc.).
Patania, *Moore, Lep. Atk.* p. 209 (1888).
Pramadea, *Moore, Lep. Atk.* p. 211.
Pleuroptya, *Meyr. Trans. Ent. Soc.* 1890, p. 443.
Loxoscia, *Warr. A. M. N. H.* (6) vi, p. 476 (1890).
Haritalodes, *Warr. A. M. N. H.* (6) vi, p. 476.
Pardomima, *Warr. A. M. N. H.* (6) vi, p. 477.

Type, *S. amando*, Cram., from S. America.
*Range.* The tropical and warmer temperate zones.

Palpi upturned and reaching vertex of head, the 2nd joint moderately and evenly scaled in front, the 3rd short, naked, and blunt; maxillary palpi filiform; frons rounded; antennæ of male ciliated; tibiæ smoothly scaled, with the outer spurs about

half the length of inner. Fore wing with veins 3, 4, 5 from angle of cell; 7 curved and approximated to 8, 9, to which 10 also is approximated. Hind wing with the cell short; vein 3 from the angle; 4, 5 somewhat approximated for a short distance; 6, 7 from upper angle.

Sect. I. (*Patania*). Hind tibiæ of male with a large tuft of hair and long flattened scales on inner side before the medial spurs.

4955. **Sylepta concatenalis**, *Wlk. Cat.* xxxiv, p. 1408; *C. & S.* no. 4299.

♂. Fuscous brown with a cupreous tinge; palpi below, pectus, legs, and abdomen below yellowish white. Fore wing with ochreous speck in end of cell; a postmedial lunulate ochreous mark expanding on the costa and extending down to vein 3; a slight ochreous mark on costa before apex. Underside with the basal half of wings pale yellowish.

*Hab.* Sikhim. *Exp.* 30 millim.

Sect. II. Hind tibiæ of male fringed with long black hair on outer side; abdomen with paired tufts of black hair from base below; hind wing with a large tuft of black hair from inner margin near base.

4956. **Sylepta tibialis**, *Moore, Lep. Atk.* p. 216; *C. & S.* no. 4307.

Pale ochreous yellow; basal joint of antennæ black; fore legs marked with black; thorax spotted with black; abdomen orange, the base pale, with paired black spots on basal segments and another pair before the anal tuft. Fore wing with subbasal and antemedial bands; a medial band with pale mark on discocellulars, and giving off an oblique line to join the submarginal band at inner margin; a marginal band continued along inner margin to the submarginal band. Hind wing with oblique medial line terminating at anal angle; an oblique submarginal band joining the marginal band, and both terminating on vein 2; both wings with the cilia fuscous with a pale line at base.

*Hab.* Sikhim; Khásis; Nilgiris. *Exp.* 22 millim.

Sect. III. Hind tibiæ, abdomen, and hind wing without tufts of hair.

A. *Antennæ of male not excised at base.*

a. *Fore wing narrow, with the apex much produced and outer margin oblique.*

a'. *Hind wing with the outer margin angled at vein 2; antennæ of male with the shaft not fringed with scales.*

4957. **Sylepta pronaxalis**, *Wlk. Cat.* xviii, p. 688.
Pardomima acutalis, *Hmpsn. Ill. Het.* ix, p. 171, pl. 174, fig. 16.

♂. Head and thorax ochreous and brown; abdomen fuscous

black, with a pale dorsal spot at base; the anal tuft whitish and black. Fore wing with the basal area fuscous brown, bounded by an oblique antemedial line; the medial area ochreous; a discocellular black-edged reniform mark; a postmedial line straight from costa to vein 5, bent outwards to vein 2, and with some brown in its sinus, then retracted to lower angle of cell; the area beyond it brown. Hind wing fuscous brown, with indistinct oblique medial and postmedial lines from costa to vein 2; a marginal yellow line from apex to the angle at vein 2.

*Hab.* Ceylon; E. Pegu; Tenasserim; Borneo. *Exp.* 26 millim.

b′. *Hind wing with the outer margin oblique; antennæ of male with the shaft thickened and thickly fringed with hair for a short distance near base.*

4958. **Sylepta obliquifascialis**, n. sp.

Ochreous; thorax striped with brown; abdomen ringed with black, orange towards extremity, the anal tuft black and white. Fore wing with two oblique subbasal lines hardly reaching inner margin; a more prominent antemedial line, with a spot beyond it in the cell; a medial band wide at costa, narrowing to inner margin; an oblique postmedial band from costa to vein 5, where in male it touches the medial band; an oblique band given off at vein 5 from the broad marginal band and joining it again on inner margin, the marginal band running round outer angle. Hind wing with the whole area between the cell and inner margin orange; an oblique medial line; a postmedial band broad at costa, narrowing to vein 2, where it curves inwards and becomes obsolete; a marginal band expanding inwards on vein 2 and becoming obsolete.

*Hab.* Rangoon; Upper Burma (*Watson*). *Exp.* 24 millim. Type in B. M.

4959. **Sylepta chromalis**, *Wlk. Cat.* xxxiv, p. 1453.

♂. Differs from *obliquifascialis* in the medial line of fore wing not reaching the costa and embracing a discocellular lunule; the postmedial line from costa and the line from the marginal band not oblique but parallel to the margin. Hind wing with no orange patch; the medial line embracing a discocellular spot; the postmedial straight; submarginal line from costa to vein 2, and a marginal line.

*Hab.* Sikhim; Java. *Exp.* 30 millim.

b. *Fore wing broader, the apex not produced and the outer margin more erect.*

a′. (Sylepta). *Thorax of male with no fan of scales from origin of hind wing below.*

a². *Retinaculum of male normal.*

4960. **Sylepta chalybifascia**, n. sp.

♂. Pale yellow; abdomen tinged with fuscous at middle; wings

pale glossy and semi-hyaline yellow. Fore wing with ocellate antemedial mark extending from costa to inner margin, enclosing a pale centre, its edges rufous and steel-blue; a steel-blue and rufous wedge-shaped fascia on inner area from the antemedial mark to the nearly straight black submarginal line, which expands into a spot at costa and is broken near inner margin; the discocellulars and veins beyond the cell marked with rufous; a faint diffused rufous line just inside the margin; the apex blackish, with a white spot below it. Hind wing with discocellular blackish band; the inner area tinged with rufous and with three curved black bars on it; a dark submarginal line from costa to vein 2 with diffused rufous beyond it.

*Hab.* Nágas (*Doherty*). *Exp.* 22 millim. Type in B. M.

4961. **Sylepta gastralis**, *Wlk. Cat.* xxxiv, p. 1356; *C. & S.* no. 4305.

Differs from *tibialis* in the fore wing having the subbasal line broken up into two spots; the pale discocellular lunule larger; the medial line angled outwards above inner margin, so that it approaches or joins the oblique line and also gives off a fascia to join the antemedial line; a brown fascia connecting the submarginal with the marginal band above middle. Hind wing with the submarginal band sending a spur inwards along vein 2 towards the medial line.

*Hab.* Dharmsála; Sikhim; Khásis. *Exp.* 36 millim.

4962. **Sylepta scinisalis**, *Wlk. Cat.* xviii, p. 648; *C. & S.* no. 4040 (part.).

Botys restrictalis, *Snell. Trans. Ent. Soc.* 1890, p. 584.

♂. Orange-yellow; fore tibiæ fuscous at extremity. Fore wing with slight fuscous spots at base and near base of inner margin; traces of an oblique sinuous antemedial line; a black spot in cell and larger discocellular spot; the outer area greyish fuscous, with slightly sinuous inner edge and small orange patch on costa near its inner edge. Hind wing with the basal half orange, with black discocellular spot; the outer half greyish fuscous.

The form *restrictalis* from Sikhim has the basal area of both wings fuscous.

*Hab.* N.W. Himalayas; Sikhim; Khásis; Moulmein. *Exp.* 36 millim.

4963. **Sylepta costalis**, *Moore, Lep. Atk.* p. 221; *C. & S.* no. 4035.

♂. Head, thorax, and abdomen ochreous, more or less suffused with fuscous; fore tibiæ fuscous at extremity. Fore wing ochreous; the basal area more or less suffused with fuscous as far as the obliquely sinuous antemedial line, or in the typical form the whole inner area suffused with fuscous to the marginal band, leaving an ochreous fascia along costa only; a spot in cell and larger discocellular spot; the postmedial line slightly excurved between veins

5 and 3, and with the whole area beyond it fuscous except an ochreous streak on costa. Hind wing ochreous; the basal area below the cell fuscous; a discocellular lunule; the outer half of wing fuscous with sinuous inner edge; or in the typical form the whole wing is fuscous, obscuring the markings.

*Hab.* Sikhim; Khásis. *Exp.* 38 millim.

4964. **Sylepta sellalis**, *Guen. Delt. & Pyr.* p. 330; *C. & S.* no. 4169.
Botys consimilalis, *Led. Wien. ent. Mon.* 1863, p. 471.
Botys disjunctalis, *Wlk. Char. Undescr. Het.* p. 96; *C. & S.* no. 4040 (part.).
Botys sciniscalis, *Moore, P. Z. S.* 1877, pl. 60, fig. 11 (*nec Wlk.*).

Differs from *costalis* in the head, thorax, abdomen, and base of fore wing not being suffused with fuscous; the last with the antemedial line curved; the postmedial line bent outwards between

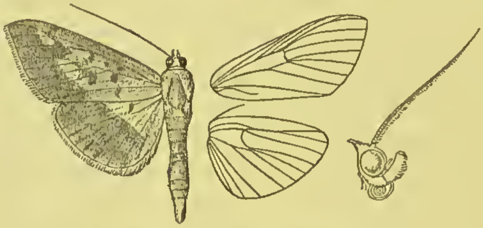

Fig. 188.—*Sylepta sellalis*, ♂. 1/1.

veins 5 and 2, enclosing an ochreous patch in its sinus below vein 2 and with a costal patch beyond it extending down to vein 6. Hind wing with no fuscous on basal inner area; the discocellular spot larger; the outer fuscous area with some diffused ochreous near its inner edge from vein 5 to inner margin and also on the outer margin.

*Hab.* Sikhim; Khásis; Burma; Andamans; Perak; Ternate; Amboina. *Exp.* 40 millim.

4965. **Sylepta bipunctalis**, *Warr. P. Z. S.* 1888, p. 333; *C. & S.* no. 4240.

♂. Differs from *costalis* in being paler; head, thorax, and abdomen more or less suffused with fuscous. Fore wing with the basal and almost the whole inner area suffused with pale fuscous, extending round the lower angle of cell beyond the discocellulars; the postmedial line less bent inwards along vein 3. Hind wing with the basal inner area slightly tinged with fuscous; the discocellular spot larger; the postmedial line outlined with pale suffusion.

♀ paler, with more pale suffusion beyond the postmedial line of fore wing on costal and inner areas and a broad band of it on hind wing.

*Hab.* Dharmsála; Thandiáni. *Exp.* 34–36 millim.

4966. **Sylepta verecunda,** *Warr. A. M. N. H.* (6) xviii, p. 167.
Botyodes fraterna, *Moore, Lep. Atk.* p. 221, pl. 7, fig. 16 (præocc.); *C. & S.* no. 4037.

Differs from *bipunctalis* in being more ochreous. Fore wing with hardly any fuscous suffusion on basal and inner areas; the spots in cell and on discocellulars reduced. Hind wing with the outer area uniform fuscous, its inner edge almost straight and only slightly indented at vein 5.

*Hab.* N.W. Himalayas; Sikhim; Khásis; Nilgiris; Ceylon *Exp.* 28 millim.

4967. **Sylepta angustalis,** *Snell. Trans. Ent. Soc.* 1890, p. 585.

Fulvous yellow; palpi black at sides, white below; male with the anal tuft black. Fore wing with the basal area suffused with fuscous to the postmedial line; an obliquely sinuous fuscous antemedial line; a spot in cell and discocellular lunule; the postmedial line minutely dentate, slightly bent outwards between veins 5 and 2, then retracted to lower angle of cell, and expanding into a spot above vein 1, the outer area fuscous, expanding inwards to the postmedial line above vein 5 and again expanding on the inner margin. Hind wing with discocellular spot; a minutely dentate postmedial line highly bent outwards between veins 5 and 2; the outer area fuscous, narrowing at middle.

*Hab.* Sikhim; Khásis. *Exp.* 30 millim.

4968. **Sylepta sabinusalis,** *Wlk. Cat.* xviii, p. 708.
Botys imbutalis, *Wlk. Cat.* xxxiv, p. 1442.
Botys sublituralis, *Wlk. Cat.* xxxiv, p. 1452; *C. & S.* no. 4076.
Notarcha butyrina, *Meyr. Trans. Ent. Soc.* 1886, p. 260.
Botys ruralis, *Snell. Trans. Ent. Soc.* 1890, p. 588 (*nec Scop.*).
Notarcha dubia, *Hmpsn. Ill. Het.* viii, p. 136, pl. 155, fig. 16.

Ochreous with a slight fuscous tinge. Fore wing with outwardly oblique sinuous antemedial fuscous line; a speck in cell and discocellular lunule; the postmedial line nearly straight from costa to vein 5, then bent outwards and minutely dentate to vein 2, along which it is retracted nearly to the cell. Hind wing with discocellular spot; a postmedial line highly bent outwards and minutely dentate between veins 5 and 2; the marginal area slightly suffused with fuscous.

Specimens from the Khási Hills are more fuscous in tone.

*Hab.* N.W. and E. Himalayas; Khásis; Karáchi; Bombay; Nilgiris; Ceylon; Borneo; Java; Celebes; Sumbawa; New Britain; Solomons; Fiji. *Exp.* 32–36 millim.

4969. **Sylepta ultimalis,** *Wlk. Cat.* xviii, p. 659; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 8; *C. & S.* no. 4105.

Olive-grey. Fore wing with the costa slightly ochreous; traces of a spot in cell and another on discocellulars; an indistinct postmedial line excurved from costa to vein 2, then retracted to angle of cell and slightly excurved again. Hind wing with traces of disco-

cellular spot and postmedial line highly bent outwards between veins 5 and 2.

*Hab.* Ceylon; Rangoon. *Exp.* 32 millim.

4970. **Sylepta multilinealis**, *Guen. Delt. & Pyr.* p. 337, pl. 8, fig. 11; *C. & S.* no. 4306.
Zebronia salomealis, *Wlk. Cat.* xvii, p. 476.
Botys otysalis, *Wlk. Cat.* xviii, p. 723.
Botys annuligeralis, *Wlk. Cat.* xxxiv, p. 1424.
Botys basipunctalis, *Brem. Lep. Ost-Sib.* p. 68, pl. 6, fig. 8.

Yellowish white; the head and thorax spotted with black and brown; abdomen with segmental brown rings; a pair of black spots or dorsal band on 2nd segment and one or two black spots towards extremity. Fore wing with two subbasal series of black-brown spots often developed into lines; an oblique antemedial line; an annulus in cell and smaller one below it; a large reniform discocellular mark; a postmedial sinuous line highly bent outwards between veins 5 and 2, and usually with a line across its sinus; the veins of outer area streaked with brown; a minutely dentate submarginal line slightly angled on vein 2; a marginal line. Hind wing with discocellular annulus touching an oblique minutely dentate antemedial line; a sinuous postmedial line, highly excurved and dentate between veins 5 and 2, its sinus crossed by a dentate line; a minutely dentate submarginal line bent outwards to anal angle; a marginal line.

The Sikhim race has the markings very dark.

*Hab.* W. Africa; E. Siberia; Japan; China; throughout India, Ceylon, and Burma; the Malayan subregion and Australian region. *Exp.* 28–40 millim.

4971. **Sylepta iopasalis**, *Wlk. Cat.* xviii, p. 652; *Moore, Lep. Ceyl.* iii, pl. 182, fig. 14; *C. & S.* no. 4095.
Botys plagiatalis, *Wlk. Cat.* xviii, p. 673; *C. & S.* no. 4101.
Botys boteralis, *Wlk. Cat.* xviii, p. 716.
Botys orobenalis, *Snell. Tjid. v. Ent.* xxiii, p. 211, & xxvi, p. 130, pl. 7, fig. 7.
Botys tardalis, *Snell. Tijd. v. Ent.* xxiii, p. 210, & xxvi, p. 130, pl. 7, fig. 6.
Botyodes leopardalis, *Moore, Lep. Atk.* p. 221, pl. 7, fig. 26; *C. & S.* no. 4039.
Notarcha tenuis, *Warr. A. M. N. H.* (6) xvii, p. 102.

Bright ochreous; the head and thorax suffused with purplish fuscous; palpi purplish fuscous towards extremity; abdomen with a pair of lateral fuscous spots on 3rd segment, and black dorsal line on penultimate segment. Fore wing with subbasal and oblique antemedial fuscous lines, the area between them more or less suffused with purplish fuscous; a speck in cell and discocellular annulus filled in with fuscous; the postmedial line straight from costa to vein 5, bent outwards and minutely dentate from veins 5 to 2, then retracted to near lower angle of cell and sinuous to inner margin, the area beyond it suffused with purplish fuscous,

usually leaving patches of ochreous on apical area and below middle; a marginal series of specks. Hind wing with discocellular spot; a postmedial line highly bent outwards and minutely dentate between veins 5 and 2, then continued to anal angle as two diffused bands; the apical area suffused with purplish fuscous; a more or less complete marginal series of specks.

*Plagiatalis*, which is probably the dry-season form, is smaller with all the dark markings reduced; fore wing with the bent-out portion of the postmedial line reduced to specks and small dark marks beyond it below apex and above inner margin.

*Hab.* Formosa; Sikhim; Assam; Karáchi; Nilgiris; Ceylon; Burma; Andamans; Borneo; Amboina; Sumbawa; Timor Laut; Australia. *Exp.*: *plagiatalis*, 24; *iopasalis*, 26–36 millim.

4972. **Sylepta mysisalis**, *Wlk. Cat.* xviii, p. 634.
Gadessa impuralis, *Warr. A. M. N. H.* (6) xviii, p. 167.

Pale ochreous. Fore wing with oblique sinuous antemedial fuscous line; a spot in cell and discocellular lunule; the postmedial line excurved between veins 5 and 3, then retracted to below angle of cell and sinuous to inner margin; a marginal fuscous band narrowing to outer angle. Hind wing with discocellular spot; the postmedial line highly bent outwards between veins 5 and 2; a marginal fuscous band slightly widest at apex.

*Hab.* W. Africa; Khásis; Nilgiris. *Exp.* 26 millim.

4973. **Sylepta venustalis**, *Swinh. A. M. N. H.* (6) xiv, p. 199.

♂. Differs from *aurantiacalis* in being orange. Fore wing with the spot in cell, the ante- and postmedial lines, hind wing with the discocellular spot and postmedial line, stronger and blacker; no fuscous on outer area except at apex of hind wing; a series of marginal fuscous specks and the cilia fuscous.

*Hab.* Khásis. *Exp.* 40 millim.

4974. **Sylepta nigriflava**, *Swinh. A. M. N. H.* (6) xiv, p. 199.

♂. Differs from *aurantiacalis* in being orange. Fore wing with no spot in cell; the discocellular spot of both wings, the antemedial line of fore wing, and postmedial line of both wings blacker; the outer area and margin unmarked.

*Hab.* Sikhim; Khásis. *Exp.* 30 millim.

4975. **Sylepta dissipatalis**, *Led. Wien. ent. Mon.* 1863, p. 474, pl. 11, fig. 13.
Samea quinquigera, *Moore, Lep. Atk.* p. 207, pl. 7, fig. 14; *C. & S.* no. 4249.

Fuscous brown with a cupreous tinge; the collar and basal segment of abdomen whitish; some white before the anal tuft. Fore wing with curved antemedial line; a diffused yellowish-white patch inside it below the cell; a quadrate spot in end of cell; the postmedial line slightly bent outwards between veins 5 and 2, then retracted to near the angle of cell, a large yellowish-

white patch inside it from the costa to vein 2, a small spot beyond it below the costa and small spots inside and beyond it between the cell and inner margin. Hind wing with the basal area yellowish white; a dark-edged reniform discocellular spot; the postmedial line nearly straight from costa to vein 2, then retracted to near angle of cell and conjoined to the marginal brown area near anal angle; a narrow ochreous band beyond it from costa to vein 2 and from vein 2 to near anal angle; cilia whitish towards outer angle of fore wing and on greater part of hind wing.

*Hab.* Sikhim; Khásis; Ceylon; Tenasserim. *Exp.* 28 millim.

4976. **Sylepta quadrimaculalis,** *Koll. Hüg. Kaschm.* iv, p. 492; *Led. Wien. ent. Mon.* 1863, pl. 16, fig. 12.
Nagia desmialis, *Wlk. Cat.* xxxiv, p. 1320.
Coptobasis quadrimaculalis, *C. & S.* no. 4274 (*nec Brem. & Grey*).

Fuscous brown; palpi below, pectus, legs, and abdomen below white. Fore wing with traces of oblique antemedial line, and of two dark specks in cell with a pale speck between them; a whitish patch beyond the cell from vein 7 to 3, its lower part expanded outwards and dentate, its outer edge bounded by the obscure postmedial line, which is retracted below the patch to origin of vein 2. Hind wing with large whitish patch beyond the cell, its outer edge dentate on vein 4; cilia whitish towards outer angle of fore wing and anal angle of hind wing. Underside suffused with greyish white.

*Hab.* Japan; N.W. Himalayas; Sikhim; Khásis; Borneo. *Exp.* 38 millim.

4977. **Sylepta subalbidalis,** *Swinh. A. M. N. H.* (6) xiv, p. 201.

♂. Uniform smoky black; legs and abdomen below whitish; wings with slight purplish reflections; an indistinct discocellular dark spot; an indistinct postmedial line bent outwards and minutely dentate between veins 5 and 2, then retracted to below angle of cell. Underside suffused with grey; fore wing with dark spots in cell and on discocellulars; the postmedial line prominent, expanding into dark spots below veins 6 and 2 of hind wing.

*Hab.* Khásis. *Exp.* 26 millim.

4978. **Sylepta ogoalis,** *Wlk. Cat.* xviii, p. 689.
Coptobasis colomboensis, *Moore, Lep. Ceyl.* iii, p. 556, pl. 215, fig. 13; *C. & S.* no. 4266.

♂. Fuscous with a purple gloss; head with slight rufous tinge; palpi white below at base. Fore wing with obliquely curved antemedial black line; a speck in cell and discocellular spot; the postmedial line nearly straight from costa to vein 2, then retracted to near angle of cell and outwardly oblique to inner margin. Hind wing with faint traces of discocellular spot and curved medial line. Underside pale.

*Hab.* Ceylon; Borneo. *Exp.* 26 millim.

4979. **Sylepta deficiens**, *Moore, Lep. Ceyl.* iii, p. 556, pl. 215, fig. 12; *C. & S.* no. 4269.

Fuscous brown; palpi white below; underside of thorax and abdomen white; wings of a silky texture. Fore wing with an obliquely curved antemedial line; a speck in cell and discocellular lunule; a postmedial minutely waved line with large ochreous white lunule on it below costa and bent inwards along vein 2. Hind wing with discocellular speck; an indistinct postmedial line bent outwards between veins 5 and 2 and obscurely outlined with whitish.

*Hab.* Dharmsála; Sikhim; Ceylon. *Exp.* 26 millim.

b². *Retinaculum of male formed by a fan of large white scales.*

4980. **Sylepta paucistrialis**, *Warr. A. M. N. H.* (6) xvii, p. 139.

♂. Pale ochreous. Fore wing with the base of costa narrowly black; a fuscous antemedial spot on inner margin; a discocellular spot; a postmedial line extremely and very irregularly dentate from vein 6 to inner margin, some of the dentitions nearly reaching outer margin. Hind wing whitish, with a fuscous postmedial line between veins 6 and 2 and a slight marginal line.

*Hab.* Bhután; Khásis. *Exp.* 20 millim.

b′. (Pleuroptya). *Thorax of male with a fan of large scales from origin of hind wing below.*

4981. **Sylepta aurantiacalis**, *Fisch. v. Röstl. Schmett.* p. 213, pl. 75, fig. 3.

Botys crocealis, *Dup. Lép. Fr.* viii, pt. 2, p. 365, pl. 235, fig. 6.
Botys aurea, *Butl. Ill. Het.* iii, p. 76, pl. 59, fig. 12; *C. & S.* no. 4046.
Hapalia fraterna, *Moore, Lep. Ceyl.* iii, p. 338, pl. 183, fig. 9; *C. & S.* no. 4093.

Ochreous with a fulvous tinge; palpi fulvous, white below. Fore wing with obliquely sinuous antemedial fuscous line; a spot in cell and discocellular lunule; the postmedial line straight from costa to vein 5, bent outwards and minutely dentate between veins 5 and 2, then recurved to origin of vein 3 and sinuous to inner margin; a more or less prominent marginal fuscous band, broad at apex, narrowing to near outer angle, where it expands into a patch. Hind wing with discocellular speck; a postmedial line highly bent outwards between veins 5 and 2; a marginal band, broad at apex, then narrowing and becoming maculate. Thorax with the fan of scales pale.

*Hab.* S. Europe; Japan; China; throughout India, Ceylon, and Burma. *Exp.* 34–36 millim.

4982. **Sylepta pernitescens**, *Swinh. A. M. N. H.* (6) xiv, p. 203.
Pleuroptya fuscalis, *Warr. A. M. N. H.* (6) xviii, p. 165.

♂. Differs from *sabinusalis* in being darker, with a slight fulvous

tinge and suffused with fuscous; fore wing with the lines darker, the postmedial line more bent outwards between veins 5 and 2; the outer margin broadly fuscous, tapering to anal angle of hind wing. Thorax with the fan of scales bright ochreous.

*Hab.* Japan; Khásis. *Exp.* 36 millim.

B. (Pramadea). *Antennæ of male with a tooth of scales from upperside of basal joint, the shaft excised at base.*

4983. **Sylepta denticulata**, *Moore, Lep. Atk.* p. 211; *C. & S.* no. 4438.

Grey brown suffused with fuscous; palpi white below; fore tibiæ spotted with black; abdomen with slight pale rings and black dorsal marks towards extremity. Fore wing with indistinct pale curved antemedial line slightly defined with black; a pale black-ringed speck in cell and discocellular lunule; a postmedial indistinct minutely dentate pale line, excurved between veins 5 and 2, slightly defined by black, and with a black band on its inner side from vein 2 to inner margin. Hind wing with black-ringed pale discocellular speck; a minutely dentate pale postmedial line slightly defined with black and much bent outwards between veins 5 and 2; traces of a waved grey submarginal line; both wings with the cilia black-spotted.

Some specimens are much more uniform grey-brown without any fuscous suffusion and the markings very faintly defined with black.

*Hab.* Sikhim; Khásis; Nágas. *Exp.* 34 millim.

4984. **Sylepta carbatinalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 288, pl. 8, fig. 13.
Polycorys seminigralis, *Warr. A. M. N. H.* (6) xviii, p. 172.

♀. Fuscous brown. Fore wing with obscure sinuous antemedial line; an annulus in cell and discocellular lunule; a postmedial minutely dentate line with pale lunules on it, straight from costa to vein 2, then retracted to below angle of cell. Hind wing with pale discocellular speck; a minutely dentate postmedial line with pale lunules on it excurved between veins 5 and 2; both wings with pale line at base of cilia. Underside suffused with greyish.

♂ suffused with ochreous; fore wing with pale speck in cell and lunule at end of it; both wings with diffused ochreous on inner side of the dentate postmedial line.

*Hab.* Nágas; Rangoon. *Exp.* 32 millim.

4985. **Sylepta cohæsalis**, *Wlk. Cat.* xxxiv, p. 1418.
Notarcha halurga, *Meyr. Trans. Ent. Soc.* 1886, p. 259.
Coptobasis subænescens, *Warr. A. M. N. H.* (6) xvii, p. 133.

Dark fuscous with slight purplish reflections. Fore wing with curved antemedial line; a speck in cell and discocellular annulus; hind wing with obscure discocellular line; both wings with the

postmedial line straight from costa to vein 2, then retracted to lower angle of cell.

*Hab.* Khásis; Nilgiris; Sula, Celebes; Australia; Fiji. *Exp.* 30 millim.

4986. **Sylepta crotonalis,** *Wlk. Cat.* xix, p. 997; *C. & S.* no. 4267.

Fuscous with slight tinge of rufous and purple. Fore wing with obliquely sinuous antemedial black line; a small annulus in cell; a discocellular lunule; a dentate postmedial line nearly straight from costa to vein 2, then retracted to below angle of cell. Hind wing with obscure dark discocellular mark; a postmedial dentate line slightly excurved between veins 5 and 2. Underside suffused with grey.

The male has the tuft of hair on basal joint of antennæ large.

*Hab.* Sikhim; Khásis; Ceylon. *Exp.* 32 millim.

4987. **Sylepta fraterna,** *Moore, Lep. Ceyl.* iii, p. 292, pl. 181, fig. 8; *C. & S.* no. 4270.

Differs from *crotonalis* in being much darker fuscous; fore wing with the annulus in cell reduced to a speck; the discocellular lunule small; the postmedial line minutely dentate and more excurved between veins 5 and 2.

*Hab.* Nilgiris; Ceylon. *Exp.* 28 millim.

4988. **Sylepta ridopalis,** *Swinh. Trans. Ent. Soc.* 1892, p. 18.

Differs from *crotonalis* in the tuft on basal joint of antennæ of male being small; the colour greyer fuscous. Fore wing with white-centred speck in cell and discocellular lunule; the postmedial line of both wings slightly defined by pale colour; hind wing with the cilia white-tipped. Underside with whitish suffusion.

*Hab.* Khásis; E. Pegu; Tenasserim. *Exp.* 30 millim.

4989. **Sylepta lunalis,** *Guen. Delt. & Pyr.* p. 352; *C. & S.* no. 4271.
Botys thyasalis, *Wlk. Cat.* xviii, p. 734.
Coptobasis incrassata, *Warr. A. M. N. H.* (6) xviii, p. 171.

Differs from *ridopalis* in the postmedial line of neither wing being minutely dentate. Underside with slight greyish suffusion; abdomen with slight segmental dorsal white bands towards extremity.

*Hab.* Formosa; throughout India, Ceylon, and Burma; Andamans; Borneo; Celebes; Sumbawa. *Exp.* 30 millim.

4990. **Sylepta adductalis,** *Wlk. Cat.* xviii, p. 669; *C. & S.* no. 4263.
Coptobasis luminalis, *Led. Wien. ent. Mon.* 1863, p. 482, pl. 16, fig. 10.

Differs from *lunalis* in the postmedial line of both wings having a white lunule on it from below costa to vein 5 and a white spot or slight pale outline below vein 2 of fore wing.

*Hab.* Nilgiris; Ceylon; Java. *Exp.* 22–30 millim.

4991. **Sylepta textalis**, *Led. Wien. ent. Mon.* 1863, p. 482, pl. 16, fig. 9; *C. & S.* no. 4275.
Coptobasis æenealis, *Swinh. P. Z. S.* 1885, p. 867; *C. & S.* no. 4264.

Differs from *adductalis* in the antemedial line of fore wing being inwardly defined by white; hind wing with the basal area pale; both wings with the white mark beyond the postmedial line from below costa to vein 5 larger, the part of the line between veins 5 and 2 with a narrow white band and between vein 2 and inner margin with a broader band.

*Hab.* Punjab; Sikhim; Bombay; Poona; Borneo. *Exp.* 26 millim.

4992. **Sylepta arctalis**, *Guen. Delt. & Pyr.* p. 290.
Desmia opisalis, *Wlk. Cat.* xvii, p. 346; *Led. Wien. ent. Mon.* 1863, pl. 16, fig. 11; *C. & S.* no. 4273.

Differs from *adductalis* in being very much more brilliantly shot with purple. Fore wing with the antemedial line inwardly defined by white. Hind wing with the discocellular spot dark; the whole postmedial line outwardly defined by white.

*Hab.* Bombay Presidency. *Exp.* 26 millim.

4993. **Sylepta lactiguttalis**, *Warr. A. M. N. H.* (6) xvii, p. 131.

Differs from *luctuosalis* in being more shot with purple. Fore wing with the markings pure white; the subcostal postmedial patch usually smaller; the postmedial line represented by slight series of specks bent outwards between veins 5 and 2, then retracted to below angle of cell. Hind wing with the postmedial band reduced to a fine line minutely dentate and bent outwards between veins 5 and 2, then retracted to near angle of cell, sometimes obsolescent; both wings with a marginal series of pale specks, sometimes almost obsolete.

*Hab.* Khásis; Nágas; Tenasserim. *Exp.* 28 millim.

4994. **Sylepta ovialis**, *Wlk. Cat.* xviii, p. 636.

Differs from *luctuosalis* in the makings being whiter; fore wing with the subcostal lunule smaller; hind wing with less white on the postmedial line, which is highly bent outwards between veins 5 and 4.

*Hab.* W. Africa; Abyssinia; Sikhim; Khásis. *Exp.* 30–32 millim.

4995. **Sylepta luctuosalis**, *Guen. Delt. & Pyr.* p. 290; *C. & S.* no. 4259.
Botys œmealis, *Wlk. Cat.* xviii, p. 671; *C. & S.* no. 4272.
Ebulea zelleri, *Brem. Lep. Ost-Sib.* p. 70, pl. 6, fig. 12.
Coptobasis andamanalis, *Moore, P. Z. S.* 1877, p. 615, pl. 60, fig. 14; *C. & S.* no. 4265.
Hymenia erebina, *Butl. Ill. Het.* ii, p. 57, pl. 39, fig. 1.

Fuscous brown with a slight purplish tinge; palpi below, pectus, and abdomen below white; fore tibiæ spotted with brown; abdomen

with segmental ochreous rings. Fore wing with obscure straight antemedial ochreous line; a dark spot in cell, with ochreous spot on its inner side and quadrate spot beyond it; a discocellular dark lunule defined by an ochreous line on its outer side; a large ochreous lunule with minutely dentate outer edge on the postmedial line from costa to vein 5 and a spot on the sinus below vein 2; cilia whitish towards outer angle. Hind wing with dark discocellular spot; the postmedial line with a large ochreous patch on its outer side from costa to vein 2, and a narrowing band on the retracted portion between vein 2 and inner margin; cilia white at tips.

The Siberian, Japanese, and Chinese race *zelleri* has the markings whitish.

*Hab.* Siberia; Japan; China; N.W. and E. Himalayas; Andamans; Borneo. *Exp.* 22–30 millim.

## Genus **LYGROPIA**.

Lygropia, *Led. Wien. ent. Mon.* 1863, p. 381.
Haritala, *Moore, Lep. Ceyl.* iii, p. 311 (1886).
Pardomima, *Warr. A. M. N. H.* (6) vi, p. 477 (1890).
Hyperthalia, *Warr. A. M. N. H.* (6) xvii, p. 134 (1896).
Metoeca, *Warr. A. M. N. H.* (6) xvii, p. 145.

Type, *L. unicoloralis*, Guen., from S. America.

*Range.* The tropical and warmer temperate zones.

Palpi upturned, the 2nd joint evenly fringed with scales in front, the 3rd short, blunt, and naked; maxillary palpi filiform; frons rounded; antennæ of male ciliated; the outer medial spur of hind tibiæ about half the length of inner. Fore wing short and broad; veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, to which 10 is closely approximated. Hind wing with the cell short; veins 3, 4, 5 from the angle; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. (*Hyperthalia*). Hind wing of male with vesicular hollow on inner area and tuft of long hair on inner margin.

4996. **Lygropia flavicaput**, *Warr. A. M. N. H.* (6) xvii, p. 134.

♂. Head yellow; palpi with the 2nd joint fuscous; thorax pale brown; abdomen whitish. Fore wing uniform pale red-brown, with traces of a dark mark on costa beyond middle. Hind wing whitish with slight fuscous suffusion.

*Hab.* Khásis. *Exp.* 20 millim.

SECT. II. (*Lygropia*). Hind wing of male without tuft and vesicle on inner area.

4997. **Lygropia obrinusalis**, *Wlk. Cat.* xviii, p. 549; *Hmpsn. Ill. Het.* viii, pl. 156, fig. 3; *C. & S.* no. 4324.
Botys trigalis, *Led. Wien. ent. Mon.* 1863, p. 375, pl. 10. fig. 18.

Haritala graphicalis, *Swinh. P. Z. S.* 1886, p. 459; *C. & S.* no. 4322.

Bright orange-yellow; palpi with the 3rd joint black; fore tibiæ and tarsi spotted with black. Fore wing with subbasal, antemedial, and postmedial black spots on costa and large discocellular spot; indistinct sinuous ante- and postmedial orange lines, the latter slightly bent outwards between veins 5 and 2, then retracted to lower angle of cell; an indistinct curved minutely waved submarginal line. Hind wing with subbasal orange line; a discocellular spot; minutely dentate postmedial and submarginal lines, the former bent outwards from veins 5 to 2, where it meets a projection from the latter.

*Hab.* Simla; Kulu; Punjab; Mhow; Nilgiris; Nicobars; Borneo; Amboina. *Exp.* 24 millim.

4998. **Lygropia quaternalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 44.
Botys temeratalis, *Zell. K. Vet.-Ak. Handl.* 1852, p. 45.
Zebronia cassusalis, *Wlk. Cat.* xvii, p. 477; *C. & S.* no. 4320.
Zebronia aurolinealis, *Wlk. Cat.* xvii, p. 478.
Botys faustalis, *Led. Wien. ent. Mon.* 1863, p. 375, pl. 10, fig. 15.
Notarcha chrysoplasta, *Meyr. Trans. Ent. Soc.* 1884, p. 311.
Haritala delicatalis, *Hmpsn. Ill. Het.* viii, p. 137, pl. 155, fig. 5.

Differs from *obrinusalis* in the head, thorax, and abdomen having white markings; wings with the ground-colour silvery white, the orange bands prominent. Fore wing with broader subbasal and antemedial orange bands; the antemedial black spot on costa nearer the discocellular spot; the postmedial line more excurved from costa to vein 2. Hind wing with the orange bands broader; the postmedial line more excurved between veins 5 and 2.

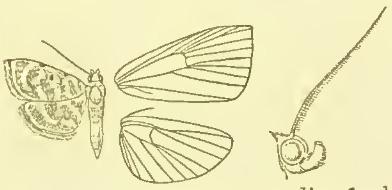

Fig. 189.—*Lygropia quaternalis*, ♂. 1/1.

*Hab.* W. and S. Africa; throughout India, Ceylon, and Burma; Australia. *Exp.* 20 millim.

4999. **Lygropia amplificata**, *Warr. A. M. N. H.* (6) xvii, p. 145.

♂. Head and thorax ochreous marked with fuscous; palpi with black spot at end of 2nd joint; abdomen orange, the terminal segment with black spot at base followed by brown and white rings. Fore wing ochreous suffused with fuscous, leaving patches of ochreous on basal and costal areas and on the postmedial line; black costal spots at base and on the sinuous antemedial line; black spots in cell and on discocellulars; both wings with a postmedial minutely dentate line arising from a black spot on costa of fore wing straight to vein 2, then retracted to lower angle of cell; a marginal series of specks.

*Hab.* Khásis. *Exp.* 22 millim.

5000. **Lygropia euryclealis**, *Wlk. Cat.* xviii, p. 651; *C. & S.* no. 4056.

Ochreous yellow; head and collar dull fulvous brown. Fore wing with the costal and outer areas fulvous brown; the latter expanding at outer angle; an obliquely sinuous antemedial brown line; a speck in cell and discocellular lunule; a minutely waved postmedial line bent outwards between veins 5 and 2, then retracted to below angle of cell. Hind wing with discocellular speck; a medial line very much bent outwards between veins 5 and 2 and dentate on those veins; a dull fulvous marginal band, broad at costa, tapering to anal angle; cilia of both wings grey-brown.

*Hab.* Sikhim; Moulmein; Flores. *Exp.*, ♂ 26, ♀ 28 millim.

5001. **Lygropia distorta**, *Moore, Lep. Ceyl.* iii, p. 270, pl. 180, fig. 7; *C. & S.* no. 4340.

Differs from *amyntusalis* in being brighter yellow, the abdomen dark orange fulvous except the first two segments, the anal segment blackish with white basal ring and lateral stripes. Fore wing with a linear spot in cell almost joined to the antemedial line; the marginal dark area broader and with no pale patch beyond the excurved part of postmedial line. Hind wing with the excurved part of the postmedial line between veins 5 and 2 straight, oblique, and sharply defined; the dark areas at apex and anal angle more extensive; a fine marginal line between veins 5 and 2.

*Hab.* Sikhim; Nilgiris; Ceylon. *Exp.* 30 millim.

5002. **Lygropia amyntusalis**, *Wlk. Cat.* xviii, p. 662; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 12; *C. & S.* no. 4339.

Asopia critheisalis, *Wlk. Cat.* xix, p. 939.
Botys semizebralis, *Wlk. Cat.* xxxiv, p. 1407.
Botys plagiferalis, *Wlk. Cat.* xxxiv, p. 1452.
Glyphodes testudinalis, *Saalm. Ber. Senckenberg. naturforsch. Ges.* 1880, p. 297.

Bright ochreous yellow; head and thorax slightly marked with brown; abdomen with paired brown spots on 2nd segment and dorsal patch on anal segment. Fore wing with two semicircular brown annuli on base of costa, the 2nd with a more or less complete line from it to inner margin; an antemedial oblique brown line forking towards the costa, and met at inner margin by an outwardly oblique line from the large brown-edged discocellular reniform mark; a postmedial brown line bent outwards and minutely waved between veins 5 and 2, joined at inner margin by a more or less complete oblique streak from the discocellular mark, and conjoined at vein 5 to the large apical brown patch and at inner margin to a patch at outer angle. Hind wing with oblique antemedial line arising from a discocellular annulus; a postmedial line bent outwards at vein 5 and terminating on the outer margin near anal angle; an apical brown patch and a marginal line.

*Hab.* Throughout India, Ceylon, and Burma; Andamans; Java. *Exp.* 26 millim.

5003. **Lygropia flavispila**, *Swinh. A. M. N. H.* (6) xiv, p. 204.

♂. Sericeous brown; palpi at base, thorax, and abdomen below pale; both wings with broad ochreous white discocellular band with sinuous edges.

*Hab.* Khásis. *Exp.* 24 millim.

5004. **Lygropia poltisalis**, *Wlk. Cat.* xviii, p. 714.
Samea yerburii, *Butl. P. Z. S.* 1886, p. 383, pl. 35, fig. 6; *C. & S.* no. 4252.
Hapalia oblita, *Moore, Lep. Atk.* p. 222; *C. & S.* no. 4100.
Notarcha semiflava, *Warr. A. M. N. H.* (6) xviii, p. 166.

Fuscous brown; palpi white below at base. Fore wing with outwardly oblique sinuous antemedial line; an annulus in cell and large discocellular spot with ochreous line on it; a dentate postmedial line slightly outlined with ochreous, retracted at vein 3 to below end of cell, then sinuous to inner margin; an ochreous spot in end of cell and patch beyond the discocellular mark, or sometimes the whole medial area suffused with ochreous. Hind wing with discocellular annulus, with an ochreous spot before it and patch beyond it; a dentate postmedial line outlined with ochreous, retracted along vein 3 to the cell, then sinuous to inner margin; both wings with the veins of the outer dark area slightly streaked with ochreous.

The form *yerburii* from the N.W. Himalayas is much paler than typical *poltisalis* from the Khásis and Borneo, which has the markings black-brown; *oblita* from Sikhim is intermediate.

*Hab.* Murree; Dalhousie; Dharmsála; Sikhim; Khásis; Borneo. *Exp.* 36 millim.

## Genus AGATHODES.

Agathodes, *Guen. Delt. & Pyr.* p. 207 (1854).
Stenurges, *Led. Wien. ent. Mon.* 1863, p. 416.

Type, *A. ostentalis*, Geyer.

*Range.* Neotropical and Ethiopian regions; India, Ceylon, and Burma; Malayan subregion to Sumbawa.

Palpi upturned and hardly reaching vertex of head, the 2nd joint broadly scaled in front, the 3rd porrect and lying on the hair of 2nd joint; maxillary palpi triangularly scaled; frons flat; antennæ of male nearly simple; mid and hind tibiæ clothed with spinous hair on outer side, the outer spurs less than half the length of the inner; abdomen long; male with lateral anal tufts and the claspers and anal tuft extremely developed. Fore wing very long and narrow; the apex produced and outer margin oblique; veins 3, 4, 5 from lower angle of cell; 7 approximated to 8, 9 for about one-third length, 10 also approximated to 8, 9. Hind wing with the cell long; vein 3 from angle; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

5005. **Agathodes ostentalis**, *Hübn. Zutr.* figs. 833, 834; *Moore, Lep. Ceyl.* iii, pl. 215, fig. 10; *C. & S.* no. 4282.

Pale fawn-colour; head and thorax marked with white; abdomen ringed with white and suffused with fuscous on dorsum except at base; the anal tuft blackish. Fore wing with the costa white; a discocellular white lunule; a broad oblique medial pink band with whitish edges from cell to inner margin, then curved outwards and continued as a diffused patch to near middle of outer margin; a large semicircular white-edged apical mark; cilia pink. Hind wing ochreous.

Fig. 190.—*Agathodes ostentalis*, ♂. 1/1.

*Hab.* Throughout India, Ceylon, and Burma; Andamans; Java; Sumbawa. *Exp.* 26–40 millim.

5006. **Agathodes modicalis**, *Guen. Delt. & Pyr.* p. 210.
Megaphysa integralis, *Wlk. Cat.* xxxiv, p. 1529.

Differs from *ostentalis* in being dark brown; abdomen with white dorsal tuft at base, the 2nd segment chestnut, the 3rd, 4th, and terminal segment fuscous. Fore wing with the part of the medial band below the cell chestnut; the deutate patch beyond the cell pale brown with chestnut on the costa above it; the cilia dark brown. Hind wing brown.

*Hab.* Tenasserim; Java. *Exp.* 46 millim.

## Genus GLYPHODES.

Glyphodes, *Guen. Delt. & Pyr.* p. 292 (1854).
Margaronia, *Hübn. Verz.* p. 358 (? 1818), non descr.
Eudioptis, *Hübn. Verz.* p. 359.
Parotis, *Hübn. Samml. exot. Schmett.* iii, p. 30 (1825), non descr.
Phakellura, *Lands. Guild. MS.*, *Westw. Intr. Mod. Class. Ins.* ii, p. 401 (1840), non descr.
Margarodes, *Guen. Delt. & Pyr.* p. 301 (1854), præocc.
Dysallacta, *Led. Wien. ent. Mon.* 1863, p. 393.
Sisyrophora, *Led. Wien. ent. Mon.* 1863, p. 399.
Enchocnemidia, *Led. Wien. ent. Mon.* 1863, p. 399.
Pachyarches, *Led. Wien. ent. Mon.* 1863, p. 398.
Chloauges, *Led. Wien. ent. Mon.* 1863, p. 405.
Cadarena, *Moore, Lep. Ceyl.* iii, p. 335 (1886).
Pitama, *Moore, Lep. Atk.* p. 217 (1888).
Cenocnemis, *Warr. A. M. N. H.* (6) xviii, p. 116 (1896).

Type, *G. stolalis*, Guen.

*Range.* The tropical and warmer temperate zones.

Palpi upturned, the 2nd joint broadly scaled in front, the 3rd porrect and lyiug along the hair on the 2nd joint; maxillary palpi triangularly scaled; frons rounded; antennæ of male nearly

simple; tibiæ with the outer spurs less than half the length of inner; male with the anal tuft large. Fore wing with the costa highly arched towards apex; veins 3, 4, 5 from angle of cell, 7 closely approximated to 8, 9 for nearly half its length; 10 also approximated to 8, 9. Hind wing with vein 3 from angle of cell; 4, 5 closely approximated for a short distance; the discocellulars slightly angled and nearly erect; 6, 7 from upper angle or shortly stalked, 7 anastomosing with 8.

SECT. I. (*Sisyrophora*). Antennæ of male with the basal joint dilated, a small tooth at base of inner side of shaft, which is contorted but not thickened; hind tibiæ fringed with hair on outer side and with a tuft on inner side near the medial spurs.

5007. **Glyphodes pfeifferæ**, *Led. Wien. ent. Mon.* 1863, p. 399, pl. 13, fig. 13; *C. & S.* no. 4216.
Cydalima elwesialis, *Snell. Trans. Ent. Soc.* 1890, p. 607, pl. xix, figs. 1, 1 *a*.

♂. Differs from *laticostalis* in the thorax and abdomen being suffused with cupreous brown; anal tuft black. Fore wing much shorter and less produced at apex; the costal band not so broad and less regular; a dark-edged white lunule on discocellulars. Hind wing with a fuscous discocellular line; both wings with a prominent silvery marginal band with slight fuscous suffusion on its inner edge and the cilia fuscous.

*Hab.* Sikhim; Khásis; Karen Hills; Andamans; Singapore; Sumatra. *Exp.* 36 millim.

SECT. II. (*Margarodes*). Antennæ of male with the basal joint dilated, the base of shaft somewhat thickened and then contorted; hind tibiæ smooth.

5008. **Glyphodes laticostalis**, *Guen. Delt. & Pyr.* p. 303; *Moore, Lep. Ceyl.* iii, pl. 182, fig. 4; *C. & S.* no. 4201.
Margarodes nitidicostalis, *Guen. Delt. & Pyr.* p. 303; *C. & S.* no. 4202.
Margaronia leodicealis, *Wlk. Cat.* xviii, p. 530.

Pure white; head, collar, base of patagia, and a broad costal band to fore wing dark cupreous brown with metallic tints; palpi white below at base; fore tibiæ banded with cupreous brown. Fore wing with the costal fascia slightly indented at discocellulars; both wings with a more or less prominent series of silvery fuscous striæ close to the margin, which is silvery white.

*Hab.* Throughout India, Ceylon, and Burma; Andamans; Pulo Laut; Sumbawa; Ceram; New Hebrides. *Exp.* 40–46 millim.

SECT. III. Antennæ of male with four caliciform teeth enclosing a hollow at base of shaft, which is much bent and contorted for about one-fourth length and with a small angulation at end of contorted portion; hind legs with a large tuft of hair on outer side of 1st joint of tarsus.

5009. **Glyphodes ophiceralis**, *Wlk. Cat.* xxxiv, p. 1440.

♂. Cupreous fuscous; fore wing with slight purplish reflections on disk; both wings with silvery marginal line.

*Hab.* Khásis; Nágas; Tenasserim; Java. *Exp.* 36 millim.

SECT. IV. Antennæ of male with the basal joint dilated and with a tuft of hair from its extremity, the shaft given off from its inner side and excised at origin.

A. *Antennæ of male with the shaft not thickened on upperside after the excision.*

a. (Dysallacta). *Fore wing of male with no fringe of hair on costa below.*

5010. **Glyphodes negatalis**, *Wlk. Cat.* xvii, p. 468; *Led. Wien. ent. Mon.* 1863, pl. 13, fig. 6; *C. & S.* no. 4143.
Botys monesusalis, *Wlk. Cat.* xviii, p. 653.
Botys phanasalis, *Wlk. Cat.* xviii, p. 727.

Grey, marked with pale fulvous and fuscous; the anal tuft black. Fore wing with outwardly-oblique, black-edged, pale fulvous, sinuous subbasal, antemedial, medial, postmedial, and marginal bands, the medial and postmedial irregular and expanding towards costa, the former bearing a discocellular black spot and with a black spot on its outer edge below vein 2; the marginal band highly dentate; a black speck in cell. Hind wing with some black and fulvous marks near lower angle of cell; a series of black postmedial striæ on the veins terminating at anal angle; an ill-defined marginal black and pale fulvous band narrowing to anal angle.

*Hab.* Throughout India, Ceylon, and Burma; Australia. *Exp.* 28–30 millim.

b. (Pachyarches). *Fore wing of male with a fringe of long hair on basal half of costa below.*

5011. **Glyphodes psittacalis**, *Hübn. Samml. exot. Schmett.* iii, p. 30, figs. 523, 524; *C. & S.* no. 4213.
Margaronia maliferalis, *Wlk. Cat.* xxxiv, p. 1363.
Parotis planalis, *Warr. A. M. N. H.* (6) xviii, p. 117.

Bright yellow-green; palpi fulvous, white below; frons with a lateral white line; fore legs white, the tibiæ banded with fulvous; thorax and abdomen pale blue below; male with the anal tuft black. Fore wing with the costa fulvous; both wings with black discocellular spot; the cilia pale fulvous, grey at tips.

*Hab.* Throughout India, Ceylon, and Burma; Andamans Borneo; Celebes; Australia; Fiji. *Exp.* 24–32 millim.

B. (Arthroschista). *Antennæ of male with the shaft thickened on upperside after the excision; fore wing with no fringe of hair on costa below.*

5012. **Glyphodes hilaralis**, *Wlk. Cat.* xviii, p. 532; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 21; *C. & S.* no. 4210.
Margaronia aquosalis, *Snell. Midd.-Sum.* iv, *Lep.* p. 66.

Pale glaucous green and blue; palpi fulvous, white below; frons white; shoulders fulvous; metathorax and abdomen with dorsal fulvous spots developing into rings on posterior segments; anal tuft of male black; fore tibiæ white banded with fulvous. Fore wing with the costal area fulvous with white below it; a fulvous and black speck in cell and another on discocellulars; the basal area and veins suffused with pale blue; a marginal series of black specks. Hind wing mostly pale silvery blue, with the green confined to the area between lower angle of cell and apex; a marginal black line. Both wings with the cilia grey and white, with a series of fuscous specks at the bases.

*Hab.* N.W. and E. Himalayas; Ceylon; Rangoon; Sumatra; Borneo. *Exp.* 28 millim.

Sect. V. Male with the basal third of antennæ fringed with hair on upperside.

5013. **Glyphodes zangisalis**, *Wlk. Cat.* xvii, p. 504.

♂. Differs from *itysalis* (p. 354) in the ground-colour being orange fulvous. Fore wing with black-edged white stripe from base of costa and curved stripe from base with its extremities on inner margin; the oblique medial band longer and narrower; the postmedial patch reniform, its lower end rounded and well separated from the prominent black-edged white postmedial line. Hind wing with black discocellular line and streak along end of median nervure and vein 2; a black-edged white postmedial band, its inner edge widening towards costa. Both wings with a black-edged white submarginal band, its inner edge broad with some purple scales on it; a black line through the cilia.

*Hab.* Nágas; Borneo; Celebes. *Exp.* 24 millim.

Sect. VI. Antennæ of male normal.

A. *Hind wing of male with the inner area thickly clothed below with tufts of yellowish hair.*

a. (Cenocnemis). *Hind tibiæ of male without tufts of hair.*

5014. **Glyphodes marginata**, *Hmpsn. Ill. Het.* ix, p. 169, pl. 173, fig. 23.

Differs from *nilgirica* in being yellower green; palpi with the tips fulvous; abdomen fulvous near the anal tuft; fore wing with the costa fulvous; both wings with the discocellular specks small;

the cilia fulvous, and also the margin in specimens from the Solomons; a marginal series of dark specks; hind wing with the inner area yellowish.

*Hab.* Sikhim; Cachar; Ganjam; Calcutta; Travancore; Ceylon; Nicobars; Solomons. *Exp.* 40 millim.

b. (Enchocnemidia). *Hind tibiæ of male with large thick tufts of black hair on outer side at middle and extremity.*

5015. **Glyphodes vertumnalis**, *Guen. Delt. & Pyr.* p. 309; *C. & S.* no. 4215.

Margarodes squamopedalis, *Guen. Delt. & Pyr.* p. 309.
Margaronia phryneusalis, *Wlk. Cat.* xviii, p. 531; *Moore, Lep. Ceyl.* iii, pl. 182, fig. 12; *C. & S.* no. 4204.
Margaronia morvusalis, *Wlk. Cat.* xviii, p. 533.
Margaronia atlitalis, *Wlk. Cat.* xviii, p. 533.
Margaronia melanuralis, *Wlk. Cat.* xxxiv, p. 1363.
Margaronia proximalis, *Wlk. Cat.* xxxiv, p. 1364.
Margaronia herbidalis, *Wlk. Cat.* xxxiv, p. 1365.
Pachyarches tibialis, *Moore, P. Z. S.* 1877, p. 618; *C. & S.* no. 4214.
Enchocnemidia fuscitibia, *Warr. A. M. N. H.* (6) xviii, p. 116.

Differs from *marginata* in the margin of neither wing being fulvous; the marginal specks often obsolete; the cilia fuscous.

The form *vertumnalis* is small, *phryneusalis* large; they occur irrespective of locality.

*Hab.* S. Africa; throughout India, Ceylon, and Burma; Andamans; Nicobars; Borneo; Philippines; Java; Ceram; Australia. *Exp.*: *vertumnalis* 36, *phryneusalis* 40–44 millim.

B. *Hind wing of male without tufts of hair on inner area below.*

a. *Abdomen with the anal tuft not developed into a large brush of long spatulate scales.*

a'. *Hind tibiæ of male with no erectile fringe of long black hair on upperside.*

a². (Chloauges). *Both wings with the outer margin slightly angled at middle.*

5016. **Glyphodes suralis**, *Led. Wien. ent. Mon.* 1863, p. 405, pl. 14, fig. 9.

Margaronia woodfordii, *Butl. A. M. N. H.* (5) xv, p. 241.

Emerald-green; palpi fulvous at tip; anal segment of abdomen partly fulvous, the tuft black in male; fore tibiæ with fulvous tufts; wings with minute discocellular black specks; a marginal series of fulvous spots, the cilia fulvous at base, white at tips chequered with fulvous.

*Hab.* Nicobars; Amboina: Solomons; Gilbert, Ellice, and Marshall Islands. *Exp.* 30–40 millim.

b². (Glyphodes). *Wings with the outer margin evenly curved.*

5017. **Glyphodes amphitritalis**, *Guen. Delt. & Pyr.* p. 307; *C. & S.* no. 4209.

♂. Pale blue; palpi fulvous, white below; abdomen with the anal tuft pale fulvous at extremity. Fore wing with the costa narrowly fulvous: both wings with marginal series of black specks.

*Hab.* Sikhim; Khásis; Shán States; Mysol; Solomons. *Exp.* 46 millim.

5018. **Glyphodes glauculalis**, *Guen. Delt. & Pyr.* p. 306; *Moore, Lep. Ceyl.* iii, pl. 181, figs. 2, 2 *a*; *C. & S.* no. 4207.
Margaronia marthesiusalis, *Wlk. Cat.* xviii, p. 531; *C. & S.* no. 4211.
Margarodes nereis, *Meyr. Trans. Ent. Soc.* 1887, p. 271.

Glaucous green; palpi bright fulvous, white below; neck and shoulders fulvous; male with the anal tuft black. Fore wing with a fulvous costal fascia on basal two-thirds with white below it; a minute dark discocellular speck; both wings with a marginal series of minute black specks.

The typical Malayan form is less blue-green in tone than the Indian forms *marthesiusalis* and *nereis*, of which the former from N.E. India and Burma is small, the latter from S. India and Ceylon large.

*Hab.* Sikhim; Assam; Calcutta; Bombay presidency; Travancore; Ceylon; Burma; Sumatra; Borneo; Java; Ternate. *Exp.*: *glauculalis* 46–50, *marthesiusalis* 34 millim.

5019. **Glyphodes pomonalis**, *Guen. Delt. & Pyr.* p. 309; *Moore, Lep. Ceyl.* iii, p. 327, pl. 182, fig. 7; *C. & S.* no. 4212.

Bright emerald-green; palpi white below; legs and underside of thorax and abdomen white; anal tuft of male large and black; fore wing with the costa white; hind wing with the costal and inner areas and folds below the cell white; both wings with the cilia tipped with white.

*Hab.* China; Sikhim; Bombay presidency; Ceylon; Sumbawa. *Exp.* 24–30 millim.

5020. **Glyphodes nilgirica**, n. sp.

Differs from *pomonalis* in being rather darker green; the palpi brown at tips; fore tibiæ banded with brown. Fore wing with the costa fuscous; each wing with a discocellular black spot and the cilia fuscous.

*Hab.* Nilgiris (*Hampson*); Travancore (*Fergusson*). *Exp.* 38 millim. Type in B.M.

5021. **Glyphodes punctiferalis**, *Wlk. Cat.* xxxiv, p. 1364.

Differs from *nilgirica* in the palpi being fulvous, white below; both wings with a marginal series of dark specks or striæ; the cilia brown at base, whitish at tips.

*Hab.* Nágas; New Guinea; Solomons. *Exp.* 28–40 millim.

5022. **Glyphodes fallacialis**, *Snell. Trans. Ent. Soc.* 1890, p. 609.

Differs from *nilgirica* in the palpi being fulvous, white below; wings without the black discocellular specks.

*Hab.* Sikhim; Khásis. *Exp.* 38 millim.

5023. **Glyphodes cupripennalis**, n. sp.

♂. Differs from *ophiceralis* (p. 347) in the fore wing being very much longer and more produced at apex; neither wing with silver on the outer margin.

*Hab.* Tenasserim Valley (*Doherty*). *Exp.* 44 millim. Type in coll. Druce.

5024. **Glyphodes picticostalis**, n. sp.

♂. Silvery white; palpi and shoulders fulvous and black at sides. Fore wing with the costa black, an orange stripe below it; a black speck in middle of cell; both wings with black discocellular lunule and fine marginal line. Underside with diffused postmedial series of fuscous spots and of marginal conjoined patches.

*Hab.* Tenasserim Valley; Andamans (*Doherty*). *Exp.* 30 millim. Type in B. M.

5025. **Glyphodes unionalis**, *Hübn. Eur. Schmett., Pyr.* fig. 132.

Botys quinquepunctalis, *Boisd. Faun. Ent. Madag.* p. 117, pl. 16, fig. 5.

Margarodes transvisalis, *Guen. Delt. & Pyr.* p. 304; *C. & S.* no. 4208.

Margaronia claralis, *Wlk. Cat.* xxxiv, p. 1362.

Botys intactalis, *Wlk. Cat.* xxxiv, p. 1402.

Pure white; palpi fulvous, white below; frons and shoulders fulvous; fore tibiæ banded with fulvous; abdomen with some black hairs in the anal tuft; wings semihyaline; fore wing with the costa fulvous.

The fore wing usually has traces of two brown specks below the costa before middle, one at each angle of cell, and one below origin of vein 2, all these being prominent in the form *quinquepunctalis*; there are sometimes also traces of a marginal series of black specks.

*Hab.* S. Europe; S. and W. Africa; Madagascar; Mauritius; Aden; throughout India and Ceylon; Australia. *Exp.* 36–40 millim.

5026. **Glyphodes nigropunctalis**, *Brem. Lep. Ost-Sib.* p. 67, pl. 6, fig. 5.

Botys submarginalis, *Wlk. Cat.* xxxiv, p. 1414; *C. & S.* no. 4203.
Margaronia neomera, *Butl. Ill. Het.* ii, p. 57, pl. 39, fig. 5.

Differs from *unionalis* in the fore wing having the costal fascia usually broader and browner; the spots around the cell usually well marked; hind wing usually with a speck at lower angle of cell; both wings with indistinct submarginal maculate fuscous line; the marginal black specks usually prominent.

*Hab.* Siberia; Japan; throughout India and Ceylon. *Exp.* 32–36 millim.

5027. **Glyphodes celsalis**, *Wlk. Cat.* xviii, p. 654; *C. & S.* no. 4205.

Botys partialis, *Led. Wien. ent. Mon.* 1863, pp. 371, 465, pl. 9, fig. 8.
Margaronia inusitata, *Butl. A. M. N. H.* (5) iv, p. 454.

Pure white; palpi fulvous, white below at base; shoulders fulvous; fore legs fulvous, the tibia banded with white. Fore wing with the costa fulvous; two small triangular dark-edged marks with pale fulvous centres in the cell before the middle; a large irregularly reniform similar mark on discocellulars and smaller oval mark below origin of vein 2. Hind wing with similar oval mark on discocellulars and black speck at lower angle of cell. Both wings with submarginal pale fulvous line highly excurved between veins 5 and 2; a marginal series of black specks.

*Hab.* Throughout India, Ceylon, and Burma; Borneo. *Exp.* 24–32 millim.

5028. **Glyphodes warrenalis**, *Swinh. A. M. N. H.* (6) xiv, p. 148.

♂. Differs from *celsalis* in the fore wings having the costal area darker; the two marks in the cell further apart; the discocellular mark reduced to an irregular lunule; the mark below vein 2 small and obsolescent. Hind wing with the discocellular mark absent. Both wings with the submarginal line much less excurved between veins 5 and 2.

*Hab.* Khásis; Nágas. *Exp.* 32 millim.

5029. **Glyphodes fraterna**, *Moore, Lep. Atk.* p. 217; *C. & S.* no. 4206.

Differs from *celsalis* in the palpi being black-brown. Fore wing with the costal fascia, the two antemedial spots below the costa, the medial patch, and a large marginal patch beyond the post-

medial line, extending from the costa to vein 3, black-brown; both wings with the postmedial line indistinct.

*Hab.* Khásis; Nágas. *Exp.* 22 millim.

5030. **Glyphodes hermesalis**, *Wlk. Cat.* xviii, p. 516.
Pitama lativitta, *Moore, Lep. Atk.* p. 217, pl. 7, fig. 21; *C. & S.* no. 4230.

♂. Pale yellow; palpi except at base, frons, antennæ, and stripes on shoulders and vertex of thorax black; thorax below with a ridge of large leaden-coloured scales near mid legs; abdomen with the distal half black. Fore wing with the costal area black, with three spots in cell conjoined to it; an outwardly-oblique nearly straight postmedial line with the area beyond it black. Hind wing with postmedial line curved from costa to anal angle, the area beyond it black.

*Hab.* Sikhim; Khásis; Borneo. *Exp.* 36 millim.

5031. **Glyphodes perspectalis**, *Wlk. Cat.* xviii, p. 515.
Phacellura advenalis, *Led. Wien. ent. Mon.* 1863, pp. 401, 478, pl. 13, fig. 17.

Head fuscous; palpi white below; thorax and abdomen white and fuscous. Fore wing fuscous, with white spot in cell and discocellular lunule; a broad white fascia below the cell from base to marginal area and fasciæ in the interspaces beyond the cell, the two between veins 2–5 short. Hind wing white, with broad fuscous marginal band narrowing to anal angle.

*Hab.* Japan; China; Dharmsála. *Exp.* 50-54 millim.

5032. **Glyphodes pulverulentalis**, n. sp.

♂. Differs from *negatalis* (p. 347) in being thickly irrorated and striated with black; abdomen with oblique lateral stripes; the anal tuft black with brown middle. Fore wing with all the markings obscured by the spots and striæ; the antemedial, medial, and postmedial bands broader and less irregular, the 1st dentate inwards on vein 2, the 2nd without discocellular spot on it, the 3rd with series of pale specks on its outer edge from vein 4 to inner margin; the dentate submarginal line replaced by a series of diffused black patches in the interspaces. Hind wing thickly irrorated and striated; oblique black-edged brown postmedial and submarginal bands almost meeting at a point near anal angle; cilia of both wings fuscous, with fulvous and brown lines at base.

*Hab.* Nágas; Tenasserim (*Doherty*). *Exp.* 30 millim. Type in coll. Elwes.

5033. **Glyphodes dysallactalis**, n. sp.

♂. Differs from *negatalis* in being paler. Fore wing with the

subbasal, antemedial, medial, and postmedial bands broader and regular, the antemedial meeting the medial just above inner margin; the discocellular spot pale; a large black patch above inner margin connecting the medial and postmedial bands; a nearly regular submarginal band with its outer black edge diffused and maculate. Hind wing with black-edged pale oblique postmedial and submarginal bands nearly meeting at a point near anal angle, the latter with some diffused fuscous patches beyond it.

*Hab.* Tenasserim (*Doherty*). *Exp.* 30 millim. Type in coll. Druce.

5034. **Glyphodes stolalis**, *Guen. Delt. & Pyr.* p. 293, pl. 3, fig. 11; *C. & S.* no. 4189.

Head, thorax, and abdomen whitish with brown stripes; palpi banded with brown; abdomen fulvous at extremity, the anal tuft black. Fore wing hyaline white, with the markings occupying the greater part of the wing; broad oblique pale fulvous subbasal and antemedial bands with black edges and black line at middle; a similar medial band broadest at costa and joined to the marginal markings at inner margin, with a hyaline discocellular lunule on it surrounded by black lines, and a hyaline spot at vein 2; a similar postmedial band broadest at costa, where it is followed by a trifid white spot, and conjoined to the marginal fuscous area below vein 6; the marginal fuscous area has a black band on its inner edge and a submarginal band most developed below apex; cilia white at tips towards outer angle. Hind wing pearly hyaline white; the median nervure and veins of inner area streaked with brown; a discocellular fuscous band with some fulvous on it, and continued to the marginal markings; the marginal area fuscous and brown, broad at costa, narrowing to anal angle, with a white line near its inner edge followed by a black band; a submarginal black band towards apex; a fine marginal black line; the cilia white except at the apex.

*Hab.* Nepal; Sikhim; Assam; Ceylon; Pulo Laut; Borneo; Australia; Fiji. *Exp.* 34 millim.

5035. **Glyphodes itysalis**, *Wlk. Cat.* xvii, p. 501; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 4; *C. & S.* no. 4184.
Glyphodes pierpersialis, *Snell. Midd.-Sum.* iv, *Lep.* p. 68.
Glyphodes malayana, *Butl. P. Z. S.* 1880, p. 684.

Head black and white; collar and patagia white, the shoulders black; thorax and abdomen brownish grey, the anal tuft black. Fore wing fulvous and fuscous; a white fascia on basal two-thirds of inner margin interrupted at middle; an oblique black-edged fulvous antemedial line ending below median nervure; a similar medial band; a metallic blue discocellular line; a postmedial broad white band ending in a point above inner margin and with its outer edge angled at middle. Hind wing hyaline white, with a black line on discocellulars. Both wings with an oblique white

postmedial fine line terminating on margin of hind wing at vein 2 and followed by a lilacine grey band, the area beyond it fuscous.

*Hab.* Formosa; Assam; W. and S. India; Ceylon; Burma; Andamans; Nicobars; Sumatra; Borneo; Java. *Exp.* 24–26 millim.

5036. **Glyphodes zelimalis**, *Wlk. Cat.* xvii, p. 502; *Moore, Lep. Ceyl.* iii, pl. 215, fig. 6; *C. & S.* no. 4190.

Glyphodes nyctealis, *Snell. Midd.-Sum.* iv, *Lep.* p. 68.

Differs from *itysalis* in the ground-colour being ferruginous and grey; the head, thorax, and abdomen grey, striped with ferruginous. Fore wing with no white fascia on inner margin; the medial band continued to inner margin and of even width throughout; the postmedial band broadly triangular, with its base on the costa. Hind wing with ferruginous streak on base of vein 2.

*Hab.* Khásis; Nilgiris; Ceylon; Sumatra; Borneo. *Exp.* 30 millim.

5037. **Glyphodes eurytusalis**, *Wlk. Cat.* xvii, p. 503.

Glyphodes opalalis, *Hmpsn. Ill. Het.* viii, p. 135, pl. 155, fig. 20.

♀. Head fulvous; frons with a lateral white line; thorax and abdomen white at sides, with a broad dorsal fulvous band; the shoulders fulvous. Fore wing with the inner area below median nervure iridescent white; the costal area fulvous, crossed by an oblique medial fulvous-yellow line, followed by an iridescent white patch in end of cell and a metallic-blue discocellular line; a large iridescent white triangular postmedial patch with its apex on vein 2. Hind wing iridescent white. Both wings with the outer area fulvous and fuscous, bounded inwardly by a double black line with pale middle, strongly toothed on vein 1 *c* of hind wing, then running out to the margin; some fuscous suffusion running up vein 1 *b* from the margin; cilia pure white.

*Hab.* Khásis; Nilgiris; Ceylon; Borneo; Loyalty Islands. *Exp.* 36 millim.

5038. **Glyphodes bivitralis**, *Guen. Delt. & Pyr.* p. 293; *Moore, Lep. Ceyl.* iii, pl. 180, figs. 2, 2 *a* (larva); *C. & S.* no. 4179.

Head, thorax, and abdomen chestnut-brown; palpi white below; patagia white at tips; abdomen white at sides and below; anal tuft of male black. Fore wing chestnut; a white fascia on basal half of inner margin; an oblique antemedial black line; a large black-edged iridescent white patch in and below end of cell; a black discocellular speck and patch with some iridescent scales on its edges below lower angle of cell; a large cornucopia-shaped black-edged iridescent white postmedial patch, with a black line beyond it bent inwards to costa. Hind wing iridescent hyaline white, with a broad chestnut marginal band with black line on its

inner edge; both wings with grey on the margin; the cilia fulvous, the tips grey on fore wing, white on hind wing.

Fig. 191.—*Glyphodes bivitralis*, ♂. ½.

*Larva* olive-brown, palest beneath; dorsal, subdorsal, and lateral series of white dots, the last with a few radiating white hairs; some black dots on thoracic and terminal somites; head reddish, with black lateral streak. *Pupa* pale red, with long antennal sheath. Food-plant, *Ficus oppositifolia*.

*Hab.* Formosa; Sikhim; Assam; W. and S. India; Ceylon; Burma; Andamans; Borneo. *Exp.* 30–34 millim.

5039. **Glyphodes naralis**, *Feld. Reis. Nov.* pl. 136, fig. 38.
Glyphodes lacteata, *Butl. P. Z. S.* 1880, p. 685.

Ochreous; the palpi and a stripe on vertex of head and collar black. Fore wing with the basal two-thirds of inner area ochreous; the costal area fuscous at base, then with a fulvous-yellow antemedial band, then a triangular dark-edged medial yellow patch with fuscous below it, then a fulvous-yellow band with a silvery discocellular line and spot on vein 2 on it; a large postmedial dark-edged yellow triangular patch with its apex on vein 1. Hind wing semihyaline ochreous, with fulvous-yellow lines on discocellulars and base of vein 2; both wings with the marginal area fulvous yellow, terminating before anal angle of hind wing and inwardly edged by two black lines, then a silvery-grey line, followed by a black band; a fine marginal black line.

*Hab.* Sikhim; Borneo. *Exp.* 28–32 millim.

5040. **Glyphodes cæsalis**, *Wlk. Cat.* xvii, p. 499; *Moore, Lep. Ceyl.* iii, pl. 183, fig. 7; *C. & S.* no. 4304.

Yellow; the palpi, head, thorax, and abdomen with black lines and bands; male with the anal tuft black. Fore wing with subbasal black line; an antemedial oblique band formed of two black-edged pale yellow patches; a large subtriangular medial black-edged patch with black below it on inner margin; a postmedial band formed of two irregular black-edged patches with their inner and outer edges indented; a submarginal black-edged patch on costa, with four spots on black suffusion extending from it to inner margin. Hind wing semihyaline, with a black discocellular line; a double oblique medial black line filled in with yellow; a postmedial black line with the area beyond it yellow. Both wings with some irregular submarginal black marks between apex and middle and a marginal black line.

*Hab.* Sikhim; Ceylon; Burma; Andamans. *Exp.* 26–34 millim.

5041. **Glyphodes canthusalis**, *Wlk. Cat.* xvii, p. 505.
Botys luciferalis, *Wlk. Cat.* xxxiv, p. 1412; *C. & S.* no. 4186.
Glyphodes lora, *Wlk. Cat.* xxxv, p. 1978.

Ferruginous red and yellow, spotted and irrorated with white; frons white; abdomen with paired white spots on basal segments. Fore wing with series of indistinct antemedial white spots; a large dark-edged hyaline white medial patch with its upper edge indented; traces of some medial white spots; a large irregular postmedial dark-edged hyaline white patch, with a dentate white band beyond it from costa to vein 2; the margin dark, expanding into a diffused patch at outer angle. Hind wing with a large dark-edged hyaline white postmedial patch from costa to vein 2; an indistinct submarginal, minutely dentate white line; the margin dark.

*Hab.* Formosa; Sikhim; Assam; Calcutta; Bombay; Canara; Andamans. *Exp.* 30–36 millim.

5042. **Glyphodes pyloalis**, *Wlk. Cat.* xix, p. 973; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 3; *C. & S.* no. 4188.
Glyphodes sylpharis, *Butl. Ill. Het.* ii, p. 57, pl. 39, fig. 2.

Brown, suffused in parts with fuscous; vertex of head, patagia, and sides of abdomen striped with white. Fore wing pale fulvous: the inner margin white; the base fuscous; an antemedial oblique white line, followed by a black-edged fulvous band, then a triangular black-edged medial hyaline white patch, followed by a fulvous band with discocellular lunule and ring-spot on vein 2 on it; a large black-edged hyaline white triangular patch with its apex on vein 1; a submarginal black-edged white line expanding into a dentate mark below costa; some fuscous suffusion inside the margin below apex; the margin pale, with a fine black line. Hind wing hyaline white; a broad marginal pale fulvous band with black inner edge; a more or less complete submarginal diffused fuscous band; the margin white, with a fine black line.

*Hab.* Japan; China; throughout India, Ceylon, and Burma. *Exp.* 26 millim.

5043. **Glyphodes lacustralis**, *Moore, P. Z. S.* 1867, p. 93, pl. 7, fig. 11; *C. & S.* no. 4185.

Head fulvous; palpi white below; thorax and abdomen yellow; the shoulders and terminal segments of abdomen fulvous. Fore wing fulvous, the inner margin narrowly white; a black spot at lower angle of cell; a black-edged white fascia below median nervure, separated by a slight fuscous bar from a large triangular postmedial patch emitting a projection towards the apex, its outer edge broadly black; a submarginal black line from vein 7 to 2. Hind wing white, with fulvous marginal band not reaching anal angle, and with a black band on its inner edge; the cilia white.

*Hab.* Sikhim. *Exp.* 38 millim.

5044. **Glyphodes crithealis**, *Wlk. Cat.* xvii, p. 344; *C. & S.* no. 4258.
Glyphodes chilka, *Moore, Lep. Atk.* p. 216, pl. vii, fig. 9; *C. & S.* no. 4181.

Red-brown suffused with fuscous; palpi black, white below. Fore wing with an oblique hyaline striga at middle of cell; a black-edged hyaline white patch in and below end of cell; a black-edged postmedial hyaline white patch, extending from the subcostals to vein 2, but varying much in size and shape, with a sinuous pale line beyond it. Hind wing with the basal half hyaline white, with a black speck or spot on discocellulars, the inner area suffused with brown; a postmedial oblique black line dentate on vein 2, followed by a pale line, the area beyond it brown; both wings with marginal black line.

*Hab.* China; N.W. and E. Himalayas. *Exp.* 32–36 millim.

5045. **Glyphodes sinuata**, *Fabr. Spec. Ins.* ii, p. 267; *Moore, Lep. Ceyl.* iii, pl. 183, figs. 2, 2 *a* (larva); *C. & S.* no. 4124.
Phalæna marginata, *Cram. Pap. Exot.* iv, pl. 400, fig. I.

Pale golden yellow; head and collar crimson; abdomen tinged with crimson above towards extremity; wings semihyaline. Fore wing with the costal area crimson, emitting two small teeth across the cell; the outer margin pink, expanding into a large patch below apex and small patch at outer angle. Hind wing with indistinct sinuous postmedial fuscous line obsolete below vein 2; a crimson patch at apex and small marginal patch at vein 2.

*Larva* thick, green, with a lateral series of black and white spots on a slender line. *Pupa* green, yellowish below, with a short anal point and pedal sheath. Food-plant, *Moduca*.

*Hab.* Ethiopian region; Nilgiris; Ceylon. *Exp.* 44 millim.

5046. **Glyphodes bicolor**, *Swains. Zool. Ill.* (1) ii, pl. 77, fig. 2; *C. & S.* no. 4178.
Eudioptis perspicillalis, *Zell. K. Vet.-Ak. Handl.* 1852, p. 53.
Glyphodes diurnalis, *Guen. Delt. & Pyr.* p. 294.
Glyphodes parvalis, *Wlk. Cat.* xxxiv, p. 1355.

Black-brown; head, collar, and patagia mostly white; palpi black, white below; anal tuft black. Fore wing with two white marks on basal part of inner margin; a black-edged semihyaline white medial band not reaching the costa, often with a spot in the cell before it; a large oval black-edged hyaline white postmedial patch between the subcostals and vein 2, with a small white triangular spot on costa beyond it; the cilia white except at middle. Hind wing with the basal area hyaline white; the outer area black-brown, with a black line on its inner edge and a fine marginal black line; the cilia white.

*Hab.* S. Africa; throughout India, Ceylon, and Burma; the Malayan subregion; Australia. *Exp.* 22 millim.

5047. **Glyphodes ernalis**, *Swinh. A. M. N. H.* (6) xiv, p. 148.

Differs from *bicolor* in being blacker. Fore wing with the outer edge of the medial band angled just above vein 1; the postmedial spot irregularly quadrangular.

*Hab.* Khásis; Burma. *Exp.* 24 millim.

5048. **Glyphodes minimalis**, n. sp.

Differs from *bicolor* in the fore wing having the basal area white except on costal area; the antemedial band broken up into a diamond-shaped spot separated from the markings on inner margin or only slightly conjoined to them.

*Hab.* Ceylon (*Green*). *Exp.* 16 millim. Type in B. M.

5049. **Glyphodes actorionalis**, *Wlk. Cat.* xvii, p. 498; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 1: *C. & S.* no. 4177.

Glyphodes zelleri, *Led. Wien. ent. Mon.* 1863, p. 478, pl. 14, fig. 3.

Glyphodes conclusalis, *Wlk. Cat.* xxxiv, p. 1354; *Hmpsn. Ill. Het.* viii, pl. 156, fig. 12.

Glyphodes tumidalis, *Warr. A. M. N. H.* (6) xviii, p. 118.

Glyphodes violalis, *Warr. A. M. N. H.* (6) xviii, p. 118.

Differs from *bicolor* in the medial band of fore wing being reduced to an oblique patch extending from subcostal nervure to above vein 1; an indistinct curved submarginal white line arising from the spot on costa. Hind wing with the marginal band narrow, tapering to anal angle, and with diffused grey on it in the form *actorionalis*, broader, more or less even throughout, and with a fairly well-defined grey line on it in the form *zelleri*.

*Hab.* Sikhim; Khásis; W. and S. India; Ceylon; Andamans; the Malayan subregion. *Exp.* 24–32 millim.

5050. **Glyphodes callizona**, *Meyr. Trans. Ent. Soc.* 1894, p. 5.

♂. Differs from *actorionalis* in the abdomen having the three segments next to the anal segment orange above. Fore wing with small spot before the antemedial patch, which is large and obliquely wedge-shaped; hind wing with the marginal band of even width throughout.

*Hab.* Shán States. *Exp.* 26 millim.

5051. **Glyphodes prothymalis**, *Swinh. Trans. Ent. Soc.* 1892, p. 19, pl. i, fig. 15.

Differs from *actorionalis* in the fore wing having a large antemedial triangular hyaline white patch extending from subcostal nervure to vein 1, along which it runs out in a point; a white discocellular lunule; the postmedial patch very large and subquadrate; the submarginal line prominent, not reaching the costa, and expanding below the apex. Hind wing with the marginal band of even width throughout, without a black line on its inner edge, and with a better-defined marginal white line.

*Hab.* Khásis. *Exp.* 38 millim.

5052. **Glyphodes orbiferalis**, n. sp.
Margaronia principalis, *Meyr. Trans. Ent. Soc.* 1894, pp. 5, 456 (*nec Wlk.*).

♀. Differs from *prothymalis* in the fore wing being shorter, broader, and less produced at apex; the triangular hyaline patch larger; no white discocellular line; the postmedial patch larger and rounded. Hind wing with the marginal band even throughout; the cilia black at base.

*Hab.* Shán States; Bernardmyo, Burma; S.E. Borneo (*Doherty*). *Exp.* 34 millim. Type in coll. Elwes.

b′. *Hind tibiæ of male with erectile fringe of very long black hair on upperside.*

5053. **Glyphodes badialis**, *Wlk. Cat.* xviii, p. 694.

♂. Head and thorax yellow; a jet-black stripe along palpi, sides of head, and shoulders; thorax with dorsal black stripe ending in a fulvous spot on metathorax; abdomen fulvous, ringed with black towards extremity. Fore wing with short black line from base of costa; some yellow at base of inner margin; a large conical black-edged yellow medial patch from subcostal nervure to inner margin, and an ovate patch beyond the cell from subcostals to vein 2. Hind wing yellow; an oblique postmedial black line from costa to outer margin near anal angle, the area beyond it fulvous; both wings with black marginal line; the cilia pale brown at base, white at tips.

*Hab.* Tenasserim; Borneo. *Exp.* 30 millim.

b. (Phacellura). *Abdomen with the anal tuft developed into a large brush of long spatulate scales.*

5054. **Glyphodes indica**, *Saund. Trans. Ent. Soc.* (2) i, 1851, p. 163, pl. 12, figs. 5, 6, 7; *Indian Museum Notes*, iii, p. 136 (larva); *C. & S.* no. 4197.
Phakellura zygænalis, *Guen. Delt. & Pyr.* p. 297.
Phakellura gazorialis, *Guen. Delt. & Pyr.* p. 297.
Eudioptis capensis, *Zell. K. Vet.-Ak. Handl.* 1852, p. 52.

Head and thorax black-brown; palpi white below; patagia white at tips; abdomen white, with the 7th and 8th segments black; the anal tuft brown and black. Fore wing with the costal and inner areas broadly black, leaving a triangular pearly hyaline white patch; the lower edge of the costal area minutely dentate; the inner edge of the marginal band dilated from vein 3 to outer angle. Hind wing pearly hyaline white, with a marginal black band broad at costa.

*Larva* feeds on cotton.

*Hab.* Throughout the Ethiopian, Oriental, and Australian regions. *Exp.* 24–28 millim.

## Genus PYGOSPILA.

Pygospila, *Guen. Delt. & Pyr.* p. 312 (1854).
Phlyctænia, *Hübn. Verz.* p. 359 (? 1818), non descr.
Lomotropa, *Led. Wien. ent. Mon.* 1863, p. 404.
Rhagoba, *Moore, Lep. Atk.* p. 217 (1888).

Type, *P. tyres*, Cram.

*Range.* India, Ceylon, and Burma; Malayan subregion to Sumbawa.

Palpi upturned, the 2nd joint broadly scaled in front, the 3rd porrect and lying on the hair of 2nd joint; maxillary palpi filiform and as long as the labial; frons rounded; antennæ of male minutely ciliated; patagia extending beyond the metathorax; tibiæ with the outer spurs half the length of the inner; abdomen long, male with the anal tuft large. Fore wing with the costa arched towards apex; the outer margin oblique; the inner margin lobed before middle and somewhat excised towards outer angle; vein 3 from angle of cell; 4, 5 approximated for about one-third length; 7 curved and approximated to 8, 9; 10 closely approximated to 8, 9. Hind wing with the costa arched at middle; vein 2 from near angle of cell; 3 from the angle; 4, 5 not approximated towards origin; 6, 7 shortly stalked and curved, 7 anastomosing slightly with 8.

SECT I. (*Pygospila*). Fore wing of male with no distortion of costa; hind wing with the inner margin not tufted.

A. *Hind wing with veins* 6, 7, 8 *normal.*

5055. **Pygospila octomaculalis**, *Moore, P. Z. S.* 1867, p. 95; *C. & S.* no. 4223.

Rhagoba bimaculata, *Moore, Lep. Atk.* p. 218; *C. & S.* no. 4231.

♂. Black; the head, thorax, abdomen, basal and costal areas of fore wing shot with metallic blue; the last with white spot below origin of vein 2 and larger spot beyond the discocellulars.

♀ with the spots larger and spots on hind wing similar to those on fore wing.

The cilia are sometimes white towards outer angle of fore wing. The male is sometimes marked like the female or intermediate.

*Hab.* Sikhim; Khásis. *Exp.*, ♂ 40, ♀ 40–48 millim.

B. *Hind wing with vein* 8 *approximated to* 7, 6 *slightly curved downwards*, 7, 8 *slightly roughly scaled below.*

5056. **Pygospila tyres**, *Cram. Pap. Exot.* iii, pl. 263, fig. C; *C. & S.* no. 4218 (part.).

Black shot with purple; palpi white below; frons with a lateral white line; thorax and patagia striped with white; abdomen with

paired dorsal and lateral series of white spots. Fore wing with two oblique whitish subbasal lines; an oblique antemedial series of three white spots, the two below the cell nacreous hyaline; a speck in the cell; a nacreous spot in end of cell and larger spot below the end; a bidentate spot beyond the cell and another towards apex. Hind wing with nacreous streaks in and below the cell; the cilia white towards anal angle. Both wings with a pair of spots between origin of veins 3 and 5, three submargiual smaller spots and a spot below vein 2.

*Hab.* Throughout India, Ceylon, and Burma; Java. *Exp.* 42–46 millim.

C. *Hind wing of male with vein* 8 *widely separated from* 7 *and only touching it at one point,* 6 *much bent downwards, the veins beyond the cell prominently roughly scaled.*

5057. **Pygospila cuprealis,** *Swinh. Trans. Ent. Soc.* 1892, p. 19, pl. 1, fig. 4.

♂. Differs from *tyres* in being cupreous brown with a faint purple tinge; the neck fulvous; the thoracic stripes obscure and brownish, the abdominal spots small. Fore wing with the subbasal markings obsolescent; the three submarginal spots absent, and the spots below vein 2 minute. Hind wing with the three submarginal spots and the spot below vein 2 obsolescent.

*Hab.* Khásis; Momeit, Burma. *Exp.* 48 millim.

Sect. II. (*Lomotropa*). Fore wing of male with a postmedial subcostal fold on underside filled with close-set fulvous scales, the costa above it crenulate; hind wing with the inner area thickly tufted with fulvous hair.

5058. **Pygospila costiflexalis,** *Guen. Delt. & Pyr.* p. 313; *Led. Wien. ent. Mon.* 1863, pl. 14, fig. 8; *C. & S.* no. 4218 (part.).

♂. Differs from *tyres* in being cupreous brown, with a slight purplish tinge, the neck fulvous. Fore wing with the subbasal lines and a patch above middle of inner margin pale fulvous; the spots beyond the cell and towards apex separated into two pairs; the upper submarginal spot absent and the other two small. Hind wing with the spot towards apex absent.

Fig. 192.—*Pygospila costiflexalis,* ♂. 1/1.

♀ with the markings as in *tyres*.

*Hab.* Bombay; Travancore; Ceylon; Sumbawa. *Exp.,* ♂ 44, ♀ 42 millim.

## Genus HEORTIA.

Heortia, *Led. Wien. ent. Mon.* 1863, p. 402.
Tyspana, *Moore, Lep. Ceyl.* iii, p. 256 (1885).

Type, *H. dominalis*, Led., from the Malayan subregion.
*Range.* China; Sikhim; Assam; Ceylon.

Palpi upturned and reaching vertex of head, the 2nd joint slightly fringed with scales, the 3rd porrect; maxillary palpi filiform; frons rounded; antennæ of male almost simple; hind tibiæ with a tuft of hair on outer side from base; build stout. Fore wing with the apex rounded; vein 1 *a* strongly developed; 3 from before angle of cell; 7 curved and approximated to 8, 9, to which 10 also is approximated. Hind wing with vein 3 from near angle of cell; 4, 5 from the angle; 6, 7 from upper angle, 7 anastomosing with 8.

5059. **Heortia vitessoides**, *Moore, Lep. Ceyl.* iii, p. 256, pl. 178, figs. 3, 3 *a* (larva); *C. & S.* no. 4517.

Head primrose-yellow; palpi and antennæ black; thorax yellow, with black stripes on vertex and tegulæ; abdomen orange, with black lines on proximal segments. Fore wing primrose-yellow;

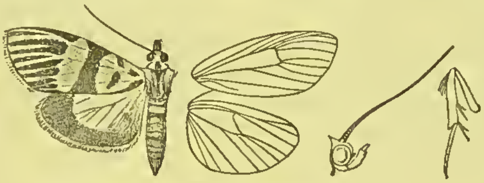

Fig. 193.—*Heortia vitessoides*, ♂. 1/1.

two black subbasal spots; outwardly oblique antemedial and medial bands, the former not reaching inner margin, the latter broader and dilated at costa and inner margin; the interspaces of outer area with broad blue-black stripes. Hind wing white, with broad blue-black marginal band.

*Larva* green; the head black; a subdorsal black line with two spots on each somite below it; the stigmata black; the ventral surface yellowish green.

*Hab.* Hongkong; Sikhim; Sibságar; Ceylon. *Exp.* 40 millim.

## Genus EUCLASTA.

Euclasta, *Led. Verh. zool.-bot. Ges. Wien*, 1855, p. 252.
Ilurgia, *Wlk. Cat.* xviii, p. 544 (1859).

Type, *E. splendidalis*, Herr.-Schäff., from Syria.
*Range.* Syria; India, Ceylon, and Burma; New Guinea; Australia.

Palpi with the 2nd joint upturned and broadly scaled in front, the 3rd porrect and lying on the hair of the 2nd joint; maxillary

palpi dilated with scales; frons flat and oblique; antennæ slightly longer than the fore wing and ciliated; legs long; tibiæ with the outer spurs half the length of inner; abdomen long. Fore wing long and narrow, the apex rounded; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and not approximated to 8, 9. Hind wing with the cell more than half the length of wing; vein 3 from angle; 4, 5 closely approximated for a short distance; 6, 7 stalked, 7 anastomosing with 8.

5060. **Euclasta defamatalis**, *Wlk. Cat.* xviii, p. 544; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 1; *C. & S.* no. 4225.

Head and thorax pale fulvous; palpi white below; frons with lateral white lines; abdomen pale fuscous, ringed with white. Fore wing pale fuscous; the costal area brownish to end of cell and with a black speck in cell and discocellular spot; a white fascia through lower part of cell; the outer area whitish, the veins streaked with brown and two subapical black streaks; a white line from costa before apex excurved to vein 4, then curving round and running to near base of inner margin, with some black on its inner edge and slightly dentate at each vein; a marginal white line. Hind wing semi-hyaline; the apical area slightly suffused with fuscous.

Fig. 194.—*Euclasta defamatalis*, ♂. 1/1.

*Hab.* Throughout India, Ceylon, and Burma. *Exp.*, ♂ 24, ♀ 30 millim.

5061. **Euclasta filigeralis**, *Led. Wien. ent. Mon.* 1863, p. 481, pl. 15, fig. 14.

♂. Differs from *defamatalis* in the head, thorax, and abdomen being rufous, the last with the discocellular speck minute and no spot in cell; the white fascia through the cell to outer margin much finer; the curved line interrupted below apex and above the fascia on inner margin, which is traversed by a fine rufous line.

*Hab.* Bangalore; Ceylon. *Exp.* 26 millim.

## Genus POLYTHLIPTA.

Polythlipta, *Led. Wien. ent. Mon.* 1863, p. 389.

Type, *P. macralis*, Led.

*Range.* India, Ceylon, and Burma; Malayan subregion to Amboina.

Palpi obliquely upturned, the 2nd joint fringed with long hair below, the 3rd naked and porrect; maxillary palpi filiform; frons rounded; antennæ almost simple and about the length of fore wing; legs very long; mid and hind tibiæ with the outer spurs two-thirds length of inner; abdomen long and slender. Fore wing with

veins 3, 4, 5 from angle of cell; 7 curved and approximated to 8, 9 for about one-third length; 10 closely approximated to 8, 9. Hind wing with the cell short; the discocellulars erect; vein 3 from angle of cell; 4, 5 approximated for a short distance; 6, 7 very shortly stalked, 7 anastomosing with 8.

SECT. I. Fore tibiæ of male fringed with hair on outer sides; the 1st joint of tarsus fringed with hair on both sides.

5062. **Polythlipta cerealis**, *Led. Wien. ent. Mon.* 1863, p. 477; *C. & S.* no. 4191.

Glyphodes vagalis, *Wlk. Cat.* xxxiv, p. 1356; *C. & S.* no. 4196.

Head and collar yellow-brown; palpi white below; frons with lateral white lines; patagia speckled with brown; metathorax with a brown band; abdomen with paired brown lateral segmental stripes. Fore wing white; the cell brown, enclosing three black-edged white spots, the spot in end of cell large; two bands given off from middle of cell, one curving inwards to base, the other outwards to inner margin, with a tooth above inner margin touching the submarginal band; a streak from end of cell to the black-edged submarginal band, which is angled outwards to the margin at middle; a marginal fuscous and yellow line emitting two dentate marks below apex. Hind wing semihyaline white, with a black speck at lower angle of cell or discocellular bar; a narrow black-edged brown submarginal band augled outwards nearly to the margin at vein 3, then sinuous to inner margin; a marginal fuscous and yellow line.

Fig. 195.—*Polythlipta cerealis*, ♂. $\frac{1}{1}$.

*Hab.* N.W. and E. Himalayas; Khásis. *Exp.* 36–38 millim.

5063. **Polythlipta ossealis**, *Led. Wien. ent. Mon.* 1863, p. 389, pl. 12, fig. 18.

Differs from *cerealis* in the whole abdomen being brown above; the wings yellowish white. Fore wing with the markings more fuscous; a large brown patch below middle of cell with ill-defined markings interrupted by white patches between it and base on one side of it and on the other the submarginal band, which is broader towards costa; a subquadrate marginal patch below apex instead of the dentate marks. Hind wing with the submarginal band fuscous, narrow below vein 5, from which point it is sharply bent out to an angle on vein 3 instead of excurved, then interrupted and maculate; fuscous marginal patches at apex and below vein 2.

*Hab.* Sikhim; Bhután; Khásis; Sumatra; Amboina. *Exp.* 36 millim.

5064. **Polythlipta divaricata**, *Moore, Lep. Ceyl.* iii, p. 311, pl. 179, fig. 16 *a* (larva); *C. & S.* no. 4193.

Differs from *ossealis* in being yellower white. Fore wing with black-edged yellow markings, reduced to a patch at base, a medial band expanding below the cell and connected by a streak on median nervure and vein 3 with the discocellular patch and submarginal band, which is narrow below vein 3 and expands again on inner margin; the subquadrate patch below apex conjoined to the submarginal band. Hind wing with two discocellular specks; the submarginal band almost obsolete below vein 5, except the spot on inner margin.

*Larva* slender; olive-green; the thoracic somites ochreous; a lateral dark green band. *Pupa* green, with short anal point and pedal sheath. Food-plant, *Phaseolus*.

*Hab.* Ceylon. *Exp.* 36–42 millim.

5065. **Polythlipta macralis**, *Led. Wien. ent. Mon.* 1863, p. 389, pl. 12, fig. 14; *C. & S.* no. 4194.

Polythlipta distorta, *Moore, Lep. Atk.* p. 215, pl. 7, fig. 25; *C. & S.* no. 4192.

Differs from *ossealis* in being pure white, with faint fuscous markings; abdomen ringed with white. Fore wing with the fuscous markings forming an almost regularly sinuous fascia from the end of cell to base of inner margin; the white spots in cell small and conjoined; the white on inner margin prominent; the submarginal band with sinuous edges; the marginal band broader, but the patch below apex smaller. Hind wing with speck at lower angle of cell; a faint dark-edged evenly sinuous postmedial band; a marginal lunulate band.

*Hab.* Sikhim; Khásis; Nilgiris; Ceylon; Tenasserim; Amboina. *Exp.* 36 millim.

5066. **Polythlipta peragrata**, *Moore, Lep. Atk.* p. 216, pl. 7, fig. 15; *C. & S.* no. 4195.

Differs from *ossealis* in the fore wing being broader, the apex less produced. Ground-colour pure white, the markings black, without any fulvous tinge; abdomen black, with dorsal white spots. Fore wing with the costa black; the postmedial band narrower from costa to vein 3, sending a spur enclosing a white spot to outer margin below apex and a curved spur to outer margin at vein 3; the marginal line broader. Hind wing with discocellular band; the postmedial band complete, straight and oblique from costa to vein 3, where it sends a spur to outer margin; the marginal line complete and developed into patches at apex and anal angle.

*Hab.* Sikhim. *Exp.* 40 millim.

5067. **Polythlipta euroalis**, *P. Z. S.* 1889, p. 420, pl. 44, fig. 12.
Phalangiodes rivulalis, *Snell. Trans. Ent. Soc.* 1890, p. 637, pl. 20, figs. 1, 1 *a*.

Yellowish brown. Fore wing with dark-edged antemedial white band from below costa to inner margin; a spot in cell; a discocellular band forming with a mark below the cell a Y-shaped band with its outer arm shortest; a postmedial spot below costa; a sinuous spot between vein 3 and inner margin; a band from costa before apex to vein 5, with another below it nearer the margin extending down to vein 3. Hind wing with diffused brown at base, followed by a broad white band, its outer edge angled outwards at vein 5 and with a dark-edged brown discocellular spot on it; the outer area yellowish brown, with black-edged sinuous white submarginal band bent outwards between veins 5 and 2.

*Hab.* Sikhim; Assam; Burma; Sumatra; Java. *Exp.* 30–34 millim.

SECT. II. Fore tibiæ and 1st tarsal joint in male not fringed with hair.

5068. **Polythlipta inconspicua**, *Moore, Lep. Atk.* p. 220; *C. & S.* no. 4038.

Greyish fuscous; thorax marked with white; abdomen ringed with white. Fore wing with medial, postmedial, and subapical white spots below costa; a medial spot below vein 2. Hind wing with the basal half white; the base and a large discocellular spot fuscous; the outer half fuscous, with sinuous inner edge and with white submarginal spots on vein 5 and near anal angle often present.

*Hab.* Sikhim; Khásis. *Exp.* 38 millim.

## Genus **LEPYRODES**.

Lepyrodes, *Guen. Delt. & Pyr.* p. 277 (1854).
Phalangiodes, *Guen. Delt. & Pyr.* p. 278.
Nausinoë, *Hübn. Verz.* p. 362 (? 1818), non descr.

Type, *L. geometralis*, Guen.

*Range.* W. Africa; Oriental region; N. Australia.

Palpi obliquely upturned, the 2nd joint very broadly scaled in front, the 3rd porrect; maxillary palpi filiform; antennæ longer than the fore wing and almost simple; legs long and slender, the outer spurs about two-thirds length of inner. Fore wing with veins 3, 4, 5 normally from angle of cell; 7 straight and well separated from 8, 9, to which 10 is closely approximated. Hind wing with the cell very short; the discocellulars straight; veins 3, 4, 5 normally from angle of cell; 6, 7 shortly stalked, 7 anastomosing with 8.

SECT. I. (*Phalangiodes*). Fore legs of male with thick tufts of long hair on the tibiæ, the 1st joint of tarsus fringed with hair on both sides; mid and hind tibiæ fringed on both sides with

short hair. Fore wing with veins 4, 5 from above angle of cell and slightly distorted. Hind wing with vein 3 from before angle of cell, curved downwards for a short distance, with a small streak of hyaline membrane above it; veins 4, 5 curved apart near origin, then approaching each other again, 7 curved downwards near origin.

5069. **Lepyrodes neptis**, *Cram. Pap. Exot.* iii, pl. 264, fig. F; *C. & S.* no. 4329.

Pale yellowish brown or fuscous brown; palpi white below; abdomen banded with white. Fore wing with two black-edged white subbasal bands not reaching the costa; a spot in cell; a wedge-shaped mark on inner margin; a discocellular white band forming with a patch below the cell a Y-shaped band, with its outer arm shortest; two large black-edged white crescentic post-medial marks; a line from costa to vein 5, with another below it

Fig. 196.—*Lepyrodes neptis*, ♂. $\frac{1}{1}$.

nearer the margin extending down to vein 2. Hind wing with the basal area white, its outer edge angled at vein 5 and with a black-edged yellow-brown discocellular mark; the outer area yellow-brown, with a black-edged wedge-shaped submarginal mark from below costa to vein 2, and another further from the margin and with its outer edge indented from vein 5 to anal angle.

*Hab.* Throughout India, Ceylon, and Burma; the Malayan sub-region; Australia. *Exp.* 32 millim.

Sect. II. (*Lepyrodes*). Male with the fore tibiæ and 1st joint of tarsus fringed with long hair, but the tibia without the thick tufts; neuration normal; no hyaline streak between veins 3 and 4 of hind wing.

5070. **Lepyrodes geometralis**, *Guen. Delt. & Pyr.* p. 278, pl. 8, fig. 6; *C. & S.* no. 4370.

Yellow, striated with black. Fore wing with two black-edged antemedial white spots below the cell; a spot at middle of cell and another at end of it; a larger spot below origin of vein 2; a small spot above vein 2 and large spot above vein 5; a submarginal line from below costa to vein 5, with another below it nearer the margin and extending down to vein 3; a large reniform spot near outer angle. Hind wing with subbasal white band; an antemedial spot between cell and inner margin; a large spot beyond the cell;

a submarginal spot from vein 6 to 3; a spot further from the margin below vein 3 and another from vein 2 to anal angle.

*Hab.* W. Africa; China; Formosa; throughout India, Ceylon, and Burma; Java; Australia. *Exp.* 26 millim.

## Genus ANALYTA.

Analyta, *Led. Wien. ent. Mon.* 1863, p. 405.

Type, *A. sigulalis*, Guen.

*Range.* W. Africa; N.W. and W. India; Borneo; Amboina.

Palpi with the 2nd joint upturned and moderately fringed with scales in front, the 3rd minute and porrect; maxillary palpi filiform; frons with a rounded prominence; antennæ of male thickened and flattened; tibiæ with the outer spurs two-thirds length of inner; abdomen with lateral tufts on terminal segments. Fore wing rather narrow; the apex somewhat produced and outer margin oblique; veins 3, 4, 5 from angle of cell; 7 slightly approximated to 8, 9; 10 approximated to 8, 9. Hind wing with the cell half the length of wing; veins 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

5071. **Analyta sigulalis**, *Guen. Delt. & Pyr.* p. 223; *C. & S.* no. 4291.
Leucinodes heranicealis, *Wlk. Cat.* xvii, p. 394.
Analyta albicilalis, *Led. Wien. ent. Mon.* 1863, p. 406, pl. 14, fig. 10.
Leucinodes auxialis, *Swinh. P. Z. S.* 1886, p. 458, pl. 41, fig. 12; *C. & S.* no. 4286.

Head and thorax black; palpi white below; abdomen white at base, with a black band at middle and suffused with fuscous towards extremity. Fore wing with the basal area black, with traces of white subbasal and antemedial sinuous lines on it; the rest of the wings white; the medial area with slight dark marks on costa and in cell; an incomplete oblique postmedial line; a large patch extending from vein 5 to inner margin, red above vein 2, black below it and with a minutely dentate line excurved round its outer side; the apical area fuscous with black specks on it. Hind wing white, with sinuous black postmedial and submarginal lines, the latter terminating at anal angle and with a black spot on it at vein 2; the apex fuscous.

Fig. 197.—*Analyta sigulalis*, ♂. 1/1.

One specimen has vein 6 of hind wing forked on one side.

*Hab.* Kulu; Mhow; Borneo; Amboina. *Exp.* 22 millim.

5072. **Analyta melanopalis**, *Guen. Delt. & Pyr.* p. 224; *C. & S.* no. 4288.

♀. Differs from *sigulalis* in the fore wing having the basal

black area less extensive; the postmedial line reduced to a black mark on inner side of the postmedial patch, which has its upper part brighter red, its lower part whitish and fulvous; the line beyond it less excurved; the apical area white; a brown spot on margin below vein 2.

*Hab.* Bombay. *Exp.* 28 millim.

## Genus LEUCINODES.

Leucinodes, *Guen. Delt. & Pyr.* p. 221 (1854).

Type, *L. elegantalis*, Guen., from S. America.

*Range.* Neotropical region; S. Africa; India, Ceylon, and Burma; Malayan and Australasian subregions.

Differs from *Analyta* in the 2nd and 3rd joints of palpi being considerably longer, the 1st joint with a tuft of forwardly projecting hair; antennæ slightly annulated and not thickened. Fore wing with vein 7 not approximated to 8; hind wing with the discocellulars highly angled; both wings with vein 3 from before angle of cell, 4, 5 well separated at origin, and the outer margin somewhat excurved or angulated at middle.

5073. **Leucinodes orbonalis**, *Guen. Delt. & Pyr.* p. 223; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 9; *Cotes, Indian Museum Notes*, iii, p. 100 (larva); *C. & S.* no. 4290.

Pycnarmon discerptalis, *C. & S.* no. 4315 (*nec Wlk.*).

White; the head and thorax variegated with black and brown. Fore wing with the base fulvous, ferruginous, and black, followed by an incomplete sinuous black line; large fulvous orbicular and reniform patches with some black on their edges and almost extending to costa; a black-edged ferruginous triangular patch from lower angle of cell to inner margin with a sinuous line beyond it; a pale fulvous sinuous postmedial band not reaching costa; a sinuous black submarginal line obsolescent towards outer angle and with a ferruginous and fuscous band beyond it, from below costa to vein 2; some black specks on margin. Hind wing opalescent, with black speck at upper angle of cell and spot at lower angle; an ill-defined postmedial black line nearly straight from costa to vein 3, then recurved and sinuous; some ill-defined pale fulvous submarginal patches and some black specks on margin.

Fig. 198.
*Leucinodes orbonalis*, ♂. 1/1.

*Larva* bores in the fruit of the 'Brinjal,' *Solanum melongela.*

*Hab.* S. Africa; throughout India, Ceylon, and Burma; Andamans; Java; Duke of York Island. *Exp.* 24 millim.

5074. **Leucinodes diaphana**, *Hmpsn. Ill. Het.* viii, p. 135, pl. 155, fig. 11.

♂. Differs from *Analyta sigulalis* in the 2nd and 3rd segments of abdomen being orange above. Fore wing with the outer edge of the black basal patch oblique and extending further along inner margin; no trace of postmedial line; the postmedial line regularly curved to outer angle, with rufous patch between it and lower angle of cell, a fuscous and grey patch on inner margin. Hind wing with no postmedial line; the submarginal line with diffused reddish fuscous on its inner edge, sending a spur to lower angle of cell and with no black spot at vein 2; the apical band extending to vein 2.

*Hab.* Nilgiris. *Exp.* 24 millim.

5075. **Leucinodes apicalis**, n. sp.

♂. Pure white; head, thorax, and abdomen marked with black. Fore wing with the base black; indistinct antemedial and medial yellowish lines; a large apical black patch irrorated with a few grey scales and traversed by a pale sinuous line continued as a yellow line to outer angle. Hind wing with basal black specks; pale yellow discocellular spot; yellow postmedial line bent inwards at vein 2 to lower angle of cell and ending in a black spot on inner margin; a subapical black spot.

*Hab.* Dharmsála (*Hocking*); Ceylon (*Green*). *Exp.* 24 millim. Type in B. M.

## Genus **CROCIDOLOMIA**.

Crocidolomia, *Zell. K. Vet.-Ak. Handl.* 1852, p. 65 (1854).
Godara, *Wlk. Cat.* xix, p. 808 (1859).

Type, *C. binotalis*, Zell.

*Range.* S. Africa; Oriental and Australian regions.

Palpi obliquely upturned, with tufts of hair at end of 1st and 2nd joints, the 3rd joint well-developed and obtuse; maxillary palpi dilated with scales at extremity; frons rounded; antennæ of male thickened and flattened with appressed serrations; fore coxæ of male very much enlarged, with a leaden-coloured semicircular hollow on inner side with large tufts of white hair on each side of it; mid tibiæ and the inner spur fringed on inner side with long hair; hind tibiæ with the outer spurs half the length of the inner; abdomen with dorsal tuft on 1st segment. Fore wing broad; a tuft of scales at middle of inner margin; male with a large tuft of hair on upperside from near base of costa recurved over the wing; underside with a fringe of hair below the cell; vein 3 from before angle of cell; 4, 5 well separated at origin; 10 separated from 8, 9. Hind wing of male with a large fovea on underside below the cell before origin of vein 2; the cell short; veins 4, 5 approximated for nearly half their length, 3 from angle of cell and approximated to them for a short distance; 6, 7 from upper angle, 7 anastomosing strongly with 8, which is highly sinuous.

SECT. I. Fore wing of male with the fringe of hair below the cell long and terminating in a tuft of long hair, no spines arising from it; hind wing with a membranous ridge at the end of the fovea.

5076. **Crocidolomia binotalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 66.
Pionea comalis, *Guen. Delt. & Pyr.* p. 368; *Moore, Lep. Ceyl.* iii, pl. 179, figs. 2, 2 *a*, *b* (larva); *C. & S.* no. 4176.
Pionea incomalis, *Guen. Delt. & Pyr.* p. 369.

Pale ochreous; palpi banded with fuscous; thorax marked with ferruginous or fuscous. Fore wing more or less suffused in parts with ferruginous and fuscous; male with the costal tuft ochreous and black; a double antemedial line highly dentate in and below cell; prominent dark-edged white spots at the angles of cell; a highly curved minutely dentate postmedial line, with a series of black specks on it and indistinct line beyond it; an indistinct minutely waved submarginal line; cilia leaden coloured at tips; the fringe of hair below median nervure ochreous. Hind wing semihyaline ochreous white; the apical area often more or less suffused with fuscous.

*Larva* pale violaceous brown with a paler dorsal stripe; two lateral series of black specks with a white line below them; a sublateral series of black specks; head red; 1st somite with a black dorsal band; legs black. *Pupa* red.

*Hab.* S. Africa; Formosa; throughout India, Ceylon, and Burma; Java; Australia; Norfolk Island. *Exp.* 26 millim.

SECT. II. Male with a large subcostal vesicle at base of fore wing on underside, with a thick tuft of short hair from the subcostal nervure just beyond it; the fringe below median nervure much shorter and emitting four strong curved spines playing on the subcostal tuft; hind wing with a membranous bar given off from the end of the fovea at origin of vein 2.

A. *Fore wing of male with a slight tuft of long hair at end of the fringe below the cell.*

5077. **Crocidolomia suffusalis**, *Hmpsn. Ill. Het.* viii, p. 135, pl. 155, figs. 4, 12.

♂. Differs from *binotalis* in the fore wing being usually much more uniformly suffused with reddish brown or fuscous, and often

Fig. 199.—*Crocidolomia suffusalis*, ♂. 1.

with a black medial patch between vein 2 and the inner margin; the fringe below median nervure fulvous. Hind wing usually

darker, with the apical dark area much more prominent and sometimes diffused nearly to anal angle.

♀ with the fore wing more uniformly suffused with fuscous.

*Hab.* Sikhim; Nilgiris; Ceylon. *Exp.* 26–28 millim.

B. *Fore wing of male with no tuft of long pale hair at end of the fringe below median nervure.*

5078. **Crocidolomia luteolalis**, *Hmpsn. Ill. Het.* ix, p. 168, pl. 173, figs. 4, 11.

♂. Differs from *binotalis* in the fore wing being almost entirely suffused with bright ferruginous red; the fringe below median nervure dark rufous. Hind wing ochreous, with the apical patch black.

♀ with the head, thorax, and fore wing uniform rufous brown, the last with the lines obscured, and the white spots minute.

*Hab.* Ceylon. *Exp.* 32 millim.

## Genus HELLULA.

Hellula, *Guen. Delt. & Pyr.* p. 415 (1854).

Type, *H. undalis*, Fabr.

*Range.* The tropical and warmer temperate zones.

Palpi obliquely upturned and reaching vertex of head, the 1st and 2nd joints with tufts of scales at extremity, the 3rd well developed and obtuse; maxillary palpi filiform; frons smooth; antennæ somewhat thickened; legs smooth, the spurs moderate and of even length. Fore wing triangular; vein 3 from near angle of cell; 4, 5 from angle; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 7 anastomosing with 8.

5079. **Hellula undalis**, *Fabr. Ent. Syst.* iii, 2, p. 226; *Herr.-Schäffer, Eur. Schmett.* iv, pl. 8, fig. 54; *C. & S.* no. 4518.
Scoparia alconalis, *Wlk. Cat.* xix, p. 827.
Leucinodes exemptalis, *Wlk. Cat.* xxxiv, p. 1313.

Grey and brown suffused with fuscous. Fore wing with pale dentate subbasal line; a dark antemedial line on a pale band excurved between subcostal and median nervures; a pale-edged dark discocellular lunule; a pale postmedial line excurved from vein 7 to 2; a pale apical spot and series of pale and dark marginal specks. Hind wing pale, with slight fuscous suffusion on apical area.

Fig. 200.—*Hellula undalis*, ♂. 1/1.

*Hab.* Mediterranean subregion, and throughout the tropical and subtropical zones, except the Neotropical and Australian regions. *Exp.* 20 millim.

### Genus FURCIVENA, nov.

Type, *F. strigiferalis*, Hmpsn.
*Range*. Sikhim.
Palpi porrect, the 2nd joint fringed with scales below, the 3rd naked; maxillary palpi filiform; frons flat and oblique; antennæ of male thickened and flattened; tibiæ with the outer spurs half the length of inner. Fore wing with vein 3 from angle of cell; 4, 5 stalked; 7 and 10 well separated from 8, 9. Hind wing with the cell about half the length of wing; vein 3 from angle; 4, 5 stalked; 6, 7 from upper angle, 7 anastomosing with 8.

5080. **Furcivena strigiferalis**, n. sp.

♂. Bright ochreous; 3rd joint of palpi black. Fore wing with the base of costa black; a prominent spot in base of cell; three less prominent spots on inner margin; a subcostal streak; two in cell; two in internomedian interspace; a prominent discocellular spot, and a curved series of postmedial black streaks in the interspaces not extending to marginal area; a marginal black line extending round the apex. Hind wing pale fuscous; the cilia ochreous.

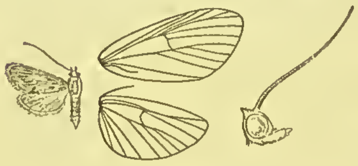

Fig. 201.
*Furcivena strigiferalis*, ♂. $\frac{1}{1}$.

*Hab*. Sikhim (*Dudgeon*). *Exp*. 16 millim. Type in B. M.

### Genus SAMEODES.

Sameodes, *Snell. Tijd. v. Ent.* xxiii, p. 217 (1880).
Pessocosma, *Meyr. Trans. Ent. Soc.* 1884, p. 300.

Type, *S. cancellalis*, Zell.
*Range*. The tropical and subtropical zones.
Palpi rostriform, extending about the length of head and down-curved at extremity, the 3rd joint prominent; maxillary palpi filiform; frons rounded. Fore wing with vein 3 from just before angle of cell; 4, 5 from the angle. Hind wing with the costa slightly excised beyond the middle; veins 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing strongly with 8.

SECT. I. Antennæ of male with long cilia and sinuous at middle; both wings with the apex somewhat produced.

A. (Pessocosma). *Male with the hind tibiæ not distorted, the outer spurs half the length of the inner; fore wing with no costal lobe.*

5081. **Sameodes peritalis**, *Wlk. Cat.* xvii, p. 466; *Hmpsn. Ill. Het.* ix, pl. 174, fig. 21; *C. & S.* no. 4372.

Differs from *cancellalis* in the hyaline markings of the fore wing

between veins 2 and 7 being reduced to a small spot above the base of vein 2 and a pair of spots between veins 5 and 7; the series beyond the postmedial line complete but small; cilia of both wings white at base, then with a black line through them, the tips chequered white and black.

*Hab.* Punjab; Nilgiris; Ceylon. *Exp.* 16 millim.

B. (Sameodes). *Male with a swelling on the outer side of hind tibiæ before the medial spurs, of which the outer is minute, the terminal spurs replaced by a small tuft of scales, the tibiæ being bent beyond the middle; fore wing with a large medial costal lobe on upperside; hind wing with the costa excised before the middle as well as after.*

5082. **Sameodes cancellalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 34.
Stenia pipleisalis, *Wlk. Cat.* xvii, p. 420; *Moore, Lep. Ceyl.* iii, pl. 181, fig. 14; *C. & S.* no. 4238.
Lepyrodes lepidalis, *Wlk. Cat.* xvii, p. 465; *C. & S.* no. 4371.
Samea sidealis, *Wlk. Cat.* xix, p. 937.
Hymenia meridionalis, *Wlk. Cat.* xxxiv, p. 1314.
Sameodes trithyralis, *Snell. Tijd. v. Ent.* xxiii, p. 218, & xxvi, p. 134, pl. 8, fig. 4.
Samea vespertinalis, *Saalm. Ber. Senck. Ges.* 1880, p. 301.

Fulvous, abdomen tinged with white; male with protrusible black anal tuft. Fore wing with the costal lobe of male edged by curled black scales; a quadrate hyaline spot in cell and larger spots below middle and in end of cell; a series of large hyaline spots in the interspaces between veins 1 and 7, retracted below vein 1 and bisected by the sinuous postmedial line which is retracted along vein 2; four black marks on the costa towards apex. Hind wing hyaline, with dark speck in and another below cell; a discocellular dark-edged fulvous band narrowing below the cell; a waved postmedial line bent outwards between veins 5 and 2, where it is conjoined to the marginal fuscous-suffused fulvous band, and with a series of hyaline spots beyond it from costa to vein 2; both wings with marginal black line and the cilia black and white.

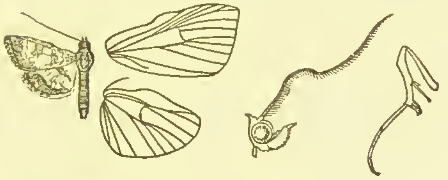

Fig. 202.—*Sameodes cancellalis*, ♂. ½.

*Hab.* Throughout Africa, India, Ceylon, and Burma; Java; Australia; Fiji. *Exp.* 22 millim.

Sect. II. Antennæ of male filiform and minutely ciliated; neither wing with the apex produced; hind wing of male with the cell very short, its upper part filled by a large hyaline fovea.

5083. **Sameodes miltochristalis**, n. sp.

Yellow or fiery orange; patagia with a fuscous spot. Fore wing

with a basal black spot; a highly curved antemedial band with black streaks inside it in and below cell, sometimes developed into a black patch; a black discocellular lunule; a postmedial line angled outwards to costa and beyond the cell, then incurved; a series of streaks beyond it often developed into a diffuse band; a very highly curved series of submarginal spots. Hind wing with nearly straight postmedial series of fuscous streaks.

*Hab.* Sikhim; Khásis; Nágas; Tenasserim (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

5084. **Sameodes pictalis**, *Swinh. A. M. N. H.* (6) xvi, p. 303.

♀. Orange-yellow; palpi brownish above; abdomen reddish at base. Fore wing with the basal half suffused with fuscous, except the costal area; a hyaline spot in cell; a large hyaline discocellular spot with a larger triangular spot below it; a small hyaline speck on vein 5 beyond the cell; bright crimson suffusion on outer edge of the fuscous area beyond the cell; a minutely waved crimson postmedial line between veins 5 and 2; a pale fuscous curved submarginal band. Hind wing with the basal area suffused with crimson; dark annuli in and below end of cell, the latter with a hyaline spot beyond it; a crimson postmedial line bent outwards and waved between veins 5 and 2; a pale fuscous submarginal band.

*Hab.* Khásis. *Exp.* 30 millim.

## Genus MEROCTENA.

Meroctena, *Led. Wien. ent. Mon.* 1863, p. 392.

Type, *M. tullalis*, Wlk.

*Range.* Indian, Ceylonese, and Malayan subregions.

Palpi porrect, straight, the 2nd joint fringed above and below with hair, the 3rd prominent; maxillary palpi filiform; frons rounded; antennæ of male unipectinate for one-third length, the basal joint emitting four teeth enclosing a hollow in front like the calyx of a flower; tibiæ of male with the outer spurs minute; abdomen with the anal tuft very large. Fore wing with veins 3, 4, 5 from close to angle of cell; 7 approximated to 8, 9 for some distance, 10 also approximated to 8, 9. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

5085. **Meroctena tullalis**, *Wlk. Cat.* xviii, p. 649; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 31; *C. & S.* no. 4079.

Bright yellow; palpi fulvous, white below. Fore wing with indistinct subbasal line, oblique antemedial line, black speck in cell, and fuscous pale-centred discocellular lunule; a medial line from vein 2 to inner margin; a postmedial line from

below costa to vein 5; a highly sinuous submarginal line with the area beyond it rufous. Hind wing with discocellular lunule; indistinct postmedial line strongly bent outwards between veins 5 and 2, below which it is diffused; a rufous apical patch and dark streak towards anal angle; both wings with a black line at base of cilia, which are pure white with black points.

Fig. 203.—*Meroctena tullalis*, ♂. 1/1.

*Hab.* Sikhim; Assam; Nilgiris; Ceylon; Burma; Pulo Laut; Java; Amboina. *Exp.* 38 millim.

## Genus THLIPTOCERAS.

Thliptoceras, *Swinh. Trans. Ent. Soc.* 1890, p. 274.
Prophantis, *Warr. A. M. N. H.* (6) xviii, p. 113 (1896).

Type, *T. cascale*, Swinh.

*Range.* S. Africa; Japan; Indian, Ceylonese, and Malayan subregions to N. Australia.

Palpi porrect, straight, and about twice the length of head, the 2nd joint fringed above and below with hair, the 3rd prominent; maxillary palpi filiform; frons rounded; hind tibiæ with the outer median spur minute. Fore wing produced at apex; the outer margin oblique; veins 3 and 5 from close to angle of cell; 7 well separated from 8, 9. Hind wing with the cell short; the discocellulars produced along vein 4, which is approximated to 5; 6, 7 stalked, 7 anastomosing strongly with 8.

SECT. I. (*Thliptoceras*). Antennæ of male with two curved teeth on basal joint forming an upturned cavity, the basal part of the shaft curved, then expanded into a cavity formed of short appressed pectinations.

5086. **Thliptoceras cascale**, *Swinh. Trans. Ent. Soc.* 1890, p. 271, pl. 8, fig. 18.

Thliptoceras variabilis, *Swinh. Trans. Ent. Soc.* 1890, p. 274; *Hmpsn. Ill. Het.* viii, pl. 156, figs. 2–10.
Circobotys phycidalis, *Snell. Trans. Ent. Soc.* 1890, p. 599.

♂. Bright straw-colour. Fore wing with indistinct slightly sinuous antemedial erect line; a discocellular speck; a postmedial minutely waved line slightly curved from costa to vein 3, then retracted to origin of vein 2. Hind wing with oblique postmedial line.

Fig. 204.
*Thliptoceras cascale*, ♂. 1/1.

♀ with the fore wing broader and less produced at apex.

A variety has the whole of the wings suffused with fuscous, leaving the costa of fore wing and cilia of both wings yellow.

*Hab.* Japan; Dharmsála; Sikhim; Bombay; Nilgiris; Ceylon; Rangoon. *Exp.* 24 millim.

Sect. II. Antennæ of male with the basal joint excised and with slight tuft of hair from inner side; fore wing less produced at apex; the costa highly arched before middle; hind wing with the inner area clothed with long hair; patagia extending beyond metathorax.

5087. **Thliptoceras stygiale**, n. sp.

♂. Uniform black-brown; palpi below, pectus, and abdomen below white. Fore wing with faint traces of postmedial line excurved from costa to vein 3, then retracted to below end of cell; hind wing with traces of obliquely curved postmedial line.

*Hab.* Nágas (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

Sect. III. (*Prophantis*). Antennæ of male ciliated.

5088. **Thliptoceras octoguttale**, *Feld. Reis. Nov.* pl. 135, fig. 38; *C. & S.* no. 4122.
Pyralis smaragdina, *Butl. A. M. N. H.* (4) xvi, p. 411.

Head and thorax purplish brown; abdomen fulvous, the anal tuft orange. Fore wing purplish brown; a hyaline dark-edged speck in cell; two obliquely placed medial spots and a spot beyond the cell, each with an orange spot on the costa above it; the costa orange at apex; a marginal orange band, narrow from costa to vein 5, then broad and narrowing to outer angle. Hind wing purplish brown, with indistinct waved medial line and marginal orange band, broad and with a purplish spot on it at apex and narrowing to anal angle.

*Hab.* Natal; Sikhim; Sibságar; Nilgiris; Ceylon; Borneo; Amboina; Australia. *Exp.* 22 millim.

## Genus ARCHERNIS.

Archernis, *Meyr. Pr. Linn. Soc. N. S. W.* (2) i, p. 254 (1887).
Protonoceras, *Warr. A. M. N. H.* (6) vi, p. 475 (1890).
Metoportha, *Meyr. Trans. Ent. Soc.* 1894, p. 463.

Type, *A. callixantha*, Meyr., from the Malayan region and New Guinea.

*Range.* Formosa; India, Ceylon, and Burma; Malayan subregion to New Guinea.

Palpi porrect, long and straight, the 2nd joint fringed with hair below, the 3rd joint prominent; maxillary palpi long and slightly dilated with scales; frons rounded; tibiæ with the outer spurs half

the length of the inner. Fore wing with the apex acute; veins 3 and 5 from close to angle of cell; 10 closely approximated to 8, 9. Hind wing with the cell short; the discocellulars erect; veins 3, 4, 5 radiating from angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. (*Protonoceras*). Male with a tuft of forwardly-directed hair between the antennæ; antennæ with the basal joint dilated, the shaft given off from its outer side, much bent near base, then with some small serrations on inner side and with long cilia.

A. *Antennæ of male with a long curved tuft of hair from the inner side of basal joint; the tuft between the antennæ long.*

5089. **Archernis tropicalis**, *Wlk. Cat.* xviii, p. 670; *Moore, Lep. Ceyl.* iii, pl. 181, fig. 9; *C. & S.* no. 4276.

Fuscous; palpi white below at base; frons and basal joint of antennæ white. Fore wing with curved dark antemedial line; a prominent dark-edged white discocellular lunule; a sinuous postmedial line excurved from costa to vein 2, where it is bent inwards, then out again, slightly outlined with white and by a prominent white patch from costa to vein 6; cilia tipped with white except at middle. Hind wing with discocellular dark lunule with white spot on its outer side; a white-edged postmedial line bent outwards between veins 5 and 2; the cilia white-tipped except at apex and middle. Underside entirely suffused with white.

Fig. 205.—*Archernis tropicalis*, ♂. 1/1.

*Hab.* Formosa; Dharmsála; Sikhim; Bombay; Nilgiris; Ceylon; Tenasserim. *Exp.* 22–30 millim.

B. *Antennæ of male without the curved tuft from basal joint; the frontal tuft less developed.*

5090. **Archernis dolopsalis**, *Wlk. Cat.* xviii, p. 692.
Protonoceras fusciluualis, *Hmpsn. Ill. Het.* viii, p. 134, pl. 155, fig. 22.

Differs from *tropicalis* in the fore wing having a dark spot in the cell and dark discocellular lunule; hind wing with no white spot beyond the discocellular lunule.

The typical male form from Ceylon and Borneo has the frontal tuft rufous and more developed than in the Nilgiri form *fuscilunalis*, and on the fore wing has a white spot between the two cell-spots.

*Hab.* Nilgiris; Ceylon; Burma; Borneo. *Exp.* 26–34 millim.

SECT. II. (*Archernis*). Antennæ of male normal.

5091. **Archernis humilis**, *Swinh. A. M. N. H.* (6) xiv, p. 146.

♂. Grey suffused and irrorated with fuscous brown; palpi white below. Fore wing with indistinct oblique slightly sinuous dark antemedial line; an indistinct dark discocellular speck; both wings with a dark postmedial line slightly excurved below costa and more so between veins 5 and 2, then retracted to below end of cell; a marginal series of dark specks and dark line through the cilia. Underside grey, with the marginal line reduced to specks.

*Hab.* Khásis; Nágas. *Exp.* 20 millim.

5092. **Archernis nictitans**, *Swinh. A. M. N. H.* (6) xiv, p. 146.

♂. Ochreous grey-brown; palpi white below; frons white. Fore wing with white discocellular spot with black marks on each side of it; both wings with a minutely dentate postmedial line bent outwards between veins 5 and 2; a marginal series of dark specks and fine pale line at base of cilia. Underside whitish, with discocellular black specks; the postmedial line reduced to specks.

*Hab.* Khásis. *Exp.* 20 millim.

5093. **Archernis obliquialis**, n. sp.

♂. Pale ochreous and brown. Fore wing reddish brown irrorated with black; the costal and inner areas pale ochreous; a pale ochreous oblique subbasal wedge-shaped band below the cell and an oblique antemedial band; two oblique lines from apex diverging towards inner margin and a marginal line; two fine black lines through the cilia. Hind wing fuscous, pale at base and with traces of pale postmedial line.

*Hab.* Sikhim (*Pilcher*). *Exp.* 16 millim. Type in B. M.

## Genus TERASTIA.

Terastia, *Guen. Delt. & Pyr.* p. 211 (1854).

Type, *T. meticulosalis*, Guen.

*Range.* Neotropical and Oriental regions.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons flat; antennæ of male ciliated; fore tibiæ fringed with long hair; mid and hind tibiæ with the outer spurs about half the length of the inner; abdomen of male with lateral tufts on the last three segments, the anal tuft long. Fore wing long and narrow; the costa arched towards apex, which is produced; the outer margin excurved at middle; the inner margin excised before outer angle, which is lobed; vein 3 from close to angle of cell; 4, 5 somewhat approximated for a short distance; 7 curved and approximated to 8, 9. Hind wing ample; the costa highly excised before and after middle, lobed at

middle and towards apex; veins 4, 5 somewhat approximated for a short distance; the discocellulars erect; veins 6, 7 from upper angle, 7 touching 8, but not anastomosing with it.

5094. **Terastia meticulosalis**, *Guen. Delt. & Pyr.* p. 212.
Terastia subjectalis, *Led. Wien. ent. Mon.* 1863, p. 480; *C. & S.* no. 4285.
Megaphysa quadratalis, *Wlk. Cat.* xxxiv, p. 1527.

Pale fawn-colour. Fore wing with the basal area slightly suffused with rufous; a pale oblique autemedial bar from the costa with a dark spot on its outer side, and bounded by an inwardly-oblique hyaline band from below costa to vein 1; a prominent oblique rufous medial band with a semihyaline patch beyond it; a rufous discocellular lunule; a pale oblique bar with dark inner edge from costa before apex, continued as a band

Fig. 206.—*Terastia meticulosalis*, ♂. $\frac{1}{1}$.

formed of three waved lines to inner margin; a rufous line close to the margin. Hind wing hyaline; the costal lobe fuscous; the apical area suffused with ochreous and rufous; postmedial and submarginal curved lines obsolete from vein 3 to inner margin; a line close to the margin.

*Larva* bores in young stems of *Erythrina*.

*Hab.* St. Domingo; Honduras; Ceylon; Java; Philippines. *Exp.* 38 millim.

5095. **Terastia egialealis**, *Wlk. Cat.* xvii, p. 383; *C. & S.* no. 4294.
Terastia proceralis, *Led. Wien. ent. Mon.* 1863, pp. 416, 480.
Agathodes diversalis, *Wlk. Cat.* xxxiv, p. 1307.
Megaphysa quadriferalis, *Wlk. Cat.* xxxiv, p. 1528.

Differs from *meticulosalis* in the colour being bright ferruginous. Fore wing with the inner area and apex suffused with golden yellow; no antemedial bar; the hyaline band erect and inwardly edged by a waved black line; the medial rufous band figure-of-8-shaped; the hyaline patch in the cell quadrate; the inner edge of the subapical band black, then reduced to specks below vein 6. Hind wing with the costal lobe black; the postmedial line reduced to black specks.

*Hab.* Dharmsála; Sikhim; Java. *Exp.* 40–54 millim.

## Genus OMPHISA.

Omphisa, *Moore, Lep. Ceyl.* iii, p. 317 (1886).

Type, *O. anastomosalis*, Guen.

*Range.* China; Indian, Ceylonese, and Malayan subregions to Duke of York Island.

Palpi porrect and straight, the 2nd joint fringed with hair below, the 3rd prominent; maxillary palpi large; frons rounded; antennæ of male moderately ciliated; patagia clothed with large scales; tibiæ with the outer spurs about half the length of the inner, the mid tibiæ clothed on the outer side with spinous hair; abdomen with large lateral tufts on the last five segments. Fore wing with the costa arched towards apex which is acute; the outer margin excurved at middle; veins 3 and 5 from close to angle of cell. Hind wing with the costa slightly excised beyond the middle; the apex somewhat produced; the outer margin excurved at middle; the inner margin short; veins 4 and 5 approximated for a short distance; 6, 7 from upper angle, 7 touching 8, but usually not anastomosing with it.

5096. **Omphisa anastomosalis**, *Guen. Delt. & Pyr.* p. 373.
Botys illisalis, *Wlk. Cat.* xviii, p. 653; *Moore, Lep. Ceyl.* iii, pl. 183, fig. 4; *C. & S.* no. 4107.

White; the head, thorax, and abdomen suffused with ochreous and rufous, leaving some paired pale spots on dorsum. Fore wing with rufous suffusion on basal area extending below median nervure to middle of wing; hyaline patches at middle and end of cell, with a rufous-edged ochreous spot between them; a large rufous-edged ochreous patch beyond the cell; the outer area more or less irrorated and suffused with rufous; the veins rufous; a curved postmedial rufous line with an irregularly dentate line beyond it enclosing a series of hyaline patches; a marginal rufous line. Hind wing with the base rufous; a dark-edged rufous irregular discocellular mark with line from it to inner margin; the outer area irrorated with rufous; two irregularly waved rufous postmedial lines; the apex, anal angle, and a marginal line rufous.

Fig. 207.
*Omphisa anastomosalis*, ♂. ½.

*Hab.* China; Sikhim; Khásis; Nilgiris; Ceylon; Burma; Andamans; Java; Duke of York Island. *Exp.* 32–36 millim.

5097. **Omphisa repetitalis**, *Snell. Trans. Ent. Soc.* 1890, p. 621, pl. 19, figs. 6, 6 *a*.

♂. Differs from *anastomosalis* in the cilia of both wings being streaked with fuscous at veins 3, 4 only; hind wing with apical black patch suffused with leaden grey from costa to vein 4,

continued as a black line to vein 1 *c*; cilia with their bases black from apex to vein 4.

*Hab.* Sikhim. *Exp.* 42 millim.

## Genus ISCHNURGES.

Ischnurges, *Led. Wien. ent. Mon.* 1863, p. 418.
Nesolocha, *Meyr. Trans. Ent. Soc.* 1886, p. 239.
Rhectothyris, *Warr. A. M. N. H.* (6) vi, p. 474 (1890).

Type, *I. illustralis*, Led., from New Guinea.

*Range.* Oriental region; New Guinea.

Differs from *Pyrausta* (p. 429) in the antennæ being four-fifths the length of the fore wing and annulated with raised rings at each joint; tibiæ with the outer spurs half the length of the inner.

5098. **Ischnurges gratiosalis**, *Wlk. Cat.* xvii, p. 357; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 12; *C. & S.* no. 4246.
Asopia roridalis, *Wlk. Cat.* xvii, p. 371; *C. & S.* no. 4251.

Head, thorax, and abdomen clothed with pink, yellow, and white scales; palpi white below. Fore wing bright yellow, with pink suffusion on basal costal area; an obliquely sinuous antemedial line with a hyaline speck beyond it in the cell; a pink-edged hyaline spot in end of cell with a larger spot below it, connected with the inner margin by a line, both spots with pink and dark suffusion on their inner edges and between them and the postmedial series of pink-edged hyaline spots, which consist of a bifid spot below the costa and quadrifid spot beyond the cell; the veins of outer area, the margin, and area near outer angle pink. Hind wing yellow, with a hyaline spot below middle of cell on a pink patch; a large pink-edged dentate hyaline patch beyond the cell; the outer area suffused with pink; a pink marginal band. Underside with the ground-colour white.

Fig. 208.
*Ischnurges gratiosalis*, ♂. 1/1.

*Hab.* N. China; Sikhim; Nilgiris; Travancore; Ceylon; Pulo Laut; Borneo. *Exp.* 24–30 millim.

5099. **Ischnurges rosea**, *Warr. A. M. N. H.* (6) xvii, p. 142.

♂. Orange-yellow suffused with crimson; head yellow, palpi black above. Fore wing with series of black specks on costa, some fuscous suffusion below basal part of costa; an indistinct obliquely sinuous antemedial crimson line; an elongate fuscous aunulus in cell and large dark discocellular spot. Both wings with a fine sinuous crimson postmedial line retracted at vein 2 to angle of cell, then somewhat excurved again, at vein 2 conjoined to a purplish crimson submarginal band.

*Hab.* Khásis. *Exp.* 16 millim.

5100. **Ischnurges rufalis**, *Hmpsn. Ill. Het.* ix, p. 163, pl. 172, fig. 28.

♂. Ferruginous red; palpi dark rufous. Fore wing with the costal and outer margins black; an indistinct sinuous ferruginous antemedial line; a black discocellular lunule; a sinuous ferruginous postmedial line excurved between veins 5 and 2. Hind wing with an indistinct oblique ferruginous postmedial line terminating on vein 2; the outer margin black; both wings with the cilia white at tips.

*Hab.* Ceylon. *Exp.* 12 millim.

5101. **Ischnurges argentealis**, *Hmpsn. Ill. Het.* ix, p. 163, pl. 173, fig. 16.

♂. Head orange; palpi white below; frons with lateral white stripes; thorax yellowish white, with four orange stripes; abdomen white, with dorsal orange stripe. Fore wing orange; the inner area pale yellow; a fuscous subcostal streak conjoined to the large fuscous reniform discocellular mark; an orange patch on inner margin near base; an extremely oblique orange line crossing the inner area; the postmedial line straight from the costa to vein 3, then recurved to origin of vein 2 and bent out again; a leaden fuscous submarginal band, wide below the costa. Hind wing with orange fasciæ along veins 2 and 3 conjoined to an oblique postmedial line; an orange fascia along vein 1 *b*; an orange-edged leaden fuscous marginal band from vein 6 to 2. Underside whitish.

*Hab.* Ceylon. *Exp.* 24 millim.

5102. **Ischnurges luteomarginalis**, *Hmpsn. Ill. Het.* viii, p. 134, pl. 155, fig. 18.

♂. Orange-yellow; palpi fulvous, white below; abdomen ringed with white. Fore wing with the costal area suffused with fuscous; an indistinct antemedial line, outwardly oblique from costa to median nervure; a black-edged white discocellular spot; the postmedial line nearly straight from costa to vein 2, then recurved to lower angle of cell and bent outwards again, the area beyond it fulvous. Hind wing with curved antemedial and nearly straight postmedial diffused lines, the area beyond the latter fulvous.

*Hab.* Nilgiris. *Exp.* 18 millim.

5103. **Ischnurges angustalis**, *Hmpsn. Ill. Het.* ix, p. 173, pl. 172, fig. 20.

♂. Ochreous; palpi black above; thorax suffused with fuscous. Fore wing very narrow, suffused with fuscous except on inner area; a large reniform medial ochreous spot in end of cell extending down to vein 1 and connected with inner margin by a black line; an ochreous discocellular lunule; a large postmedial ochreous reniform spot extending from costa to vein 2.

Hind wing semihyaline, with a black discocellular line; the postmedial line near the margin excurved between veins 5 and 2, then obsolete; fuscous patches at apex and anal angle.

*Hab.* Ceylon; Tenasserim. *Exp.* 20 millim.

## Genus ISOCENTRIS.

Isocentris, *Meyr. Trans. Ent. Soc.* 1887, p. 232.
Leucocraspeda, *Warr. A. M. N. H.* (6) vi, p. 475 (1890).

Type, *I. filalis*, Guen.

*Range.* Mauritius; Oriental region to N. Australia.

Differs from *Pyrausta* in the tibiæ having all the spurs long and equal.

5104. **Isocentris phœnicozona**, n. sp.

Differs from *filalis* in being pale yellow; abdomen with some crimson at base and extremity. Fore wing with some crimson on base of costa; no crimson patch at end of cell; the postmedial and submarginal lines of both wings hardly waved; the marginal band crimson; the cilia yellow, with crimson bases and patches at middle and anal angle of each wing.

*Hab.* Khásis; Nágas (*Doherty*). *Exp.* 20 millim. Type in B. M.

5105. **Isocentris filalis**, *Guen. Delt. & Pyr.* p. 204; *Snell. Tijd. v. Ent.* xxvi, p. 131, pl. vii, figs. 11, 11 *a*.
Endotricha rhodophilalis, *Wlk. Cat.* xxxiv, p. 1311; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 13; *C. & S.* no. 4250.
Botys amœnalis, *Wlk. Cat.* xxxiv, p. 1445.
Botys auralis, *Snell. Tijd. v. Ent.* 1872, p. 90, pl. 7, figs. 9, 10.
Samea dives, *Butl. P. Z. S.* 1880, p. 682.

Orange-yellow. Fore wing with some dark suffusion at base; indistinct sinuous antemedial and medial lines, the latter with a pink and purple patch beyond it on discocellulars conjoined to one below lower angle of cell; a postmedial highly sinuous line bent inwards along vein 2 to the purple patch; a highly waved submarginal line with a purplish-pink band on its outer edge; a waved line close to the margin. Hind wing with dark discocellular lunule; a highly sinuous postmedial line very much bent inwards along vein 2 and then excurved again; a sinuous submarginal line with a purplish-pink band on its outer edge; a waved line near the margin, which is fulvous; both wings with black line at base of cilia, which are pure white.

Fig. 209.
*Isocentris filalis*, ♂. $\frac{1}{1}$.

The form *rhodophilalis* has the line through base of cilia crimson.

*Hab.* Mauritius; Formosa; Sylhet; Bombay; Coimbatore; Ceylon; Burma; Java; Celebes; Australia. *Exp.* 22 millim.

5106. **Isocentris æqualis,** *Led. Wien. ent. Mon.* 1863, p. 468, pl. 10, fig. 3.
Isocentris undulinea, *Hmpsn. Ill. Het.* viii, p. 132, pl. 154, fig. 21.

♂. Fulvous; abdomen tinged with white. Fore wing with black basal speck; a curved black antemedial line; a discocellular black lunule on a diffused fuscous patch; a minutely waved postmedial line highly excurved between veins 6 and 3, then bent inwards at vein 2 and excurved again. Hind wing suffused with fuscous to the postmedial line, which is bent inwards at vein 2, then outwards again. Both wings with a minutely waved curved submarginal line, with the area beyond it pinkish; a black line at base of cilia, which are fuscous at vein 3 of fore wing, elsewhere pure white.

*Hab.* Sikhim; Khásis; Nilgiris; Ceylon; Burma; Celebes. *Exp.* 18 millim.

5107. **Isocentris cœnostolalis,** *Snell. Trans. Ent. Soc.* 1890, p. 582.
Leucocraspeda udeoides, *Hmpsn. Ill. Het.* viii, p. 134, pl. 155, fig. 17.
Hyalobathra dialychna, *Meyr. Trans. Ent. Soc.* 1894, p. 7.

Ochreous suffused with fuscous. Fore wing with indistinct dark curved antemedial line; a large fuscous discocellular patch with a highly waved line from it to inner margin; a postmedial line outwardly oblique from costa to vein 5, then minutely waved to inner margin; a minutely waved submarginal line; the apical area from beyond the postmedial line golden orange. Hind wing with indistinct dark patch at lower angle of cell; curved indistinct postmedial and submarginal minutely waved lines; both wings with the cilia black at base, pure white at tips.

*Hab.* Sikhim; Khásis; Nilgiris; Shan States. *Exp.* 26 millim.

5108. **Isocentris unicolor,** *Warr. A. M. N. H.* (6) xvi, p. 472.

Fawn colour. Fore wing with some ferruginous marks on basal inner area; an obliquely curved fine antemedial line, dark at costa, then ferruginous; a slight discocellular line; a fine postmedial line, dark and very oblique from costa to vein 5, then waved, obsolescent, and at vein 2 retracted to below angle of cell. Hind wing with fine dark minutely waved postmedial line, retracted at vein 2 to below angle of cell, then excurved again. Both wings with minutely waved black line just inside the margin; a black marginal line; the cilia pure white. Underside with the postmedial and submarginal lines represented by series of black specks.

*Hab.* Nágas; Perak; Baram, Borneo; Queensland. *Exp.* 28 millim.

5109. **Isocentris opheltesalis**, *Wlk. Cat.* xix, p. 1010; *C. & S.* no. 4345 (part.).
Hedylepta contubernalis, *Moore, Lep. Atk.* p. 208; *C. & S.* no. 4342.

Orange-yellow; fore tarsi banded with white. Fore wing with curved antemedial line; a postmedial line outwardly-oblique from costa to vein 5, then excurved to vein 2, along which it is retracted and sinuous to inner margin. Hind wing with a minutely waved postmedial line bent outwards between veins 5 and 2; both wings with the cilia black at base, pure white at tips.

*Hab.* Punjab; Pareshnáth; Moulmein; Nilgiris. *Exp.* 22 millim.

5110. **Isocentris illectalis**, *Wlk. Cat.* xviii, p. 658; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 9; *C. & S.* no. 4345 (part.)
Botys albofimbrialis, *Snell. Tijd. v. Ent.* xxvi, p. 128.
Botys niveicilialis, *Snell. Midd.-Sum.*, iv, *Lep.* p. 64.

♀. Differs from *opheltesalis* in being fulvous. Fore wing with a discocellular line; both wings with a minutely waved submarginal line.

*Hab.* Sikhim; Nágas; Ceylon; Rangoon; Shan States; Borneo; Celebes. *Exp.* 24 millim.

5111. **Isocentris miniosalis**, *Guen. Delt. & Pyr.* p. 362.
Ebulea europsalis, *Wlk. Cat.* xviii, p. 749; *C. & S.* no. 4134.
Ebulea orseisalis, *Wlk. Cat.* xviii, p. 749.

Crimson. Fore wing with a deeper crimson basal patch; a curved deep crimson antemedial line; a discocellular spot; both wings with a postmedial line oblique from costa to vein 6, then highly excurved to vein 3, where it is retracted; a curved submarginal line; the veins near margin and a marginal line deep crimson; cilia whitish at tips.

*Hab.* 'N. India'; Nilgiris; Rangoon; Ceylon; Shan States. *Exp.* 28 millim.

## Genus CROCIDOPHORA.

Crocidophora, *Led. Wien. ent. Mon.* 1863, p. 386.
Circobotys, *Butl. Ill. Het.* iii, p. 77 (1879).
Chobera, *Moore, Lep. Atk.* p. 219 (1888).
Mimocomma, *Warr. A. M. N. H.* (6) xvi, p. 473 (1895).
Monocrocis, *Warr. A. M. N. H.* (6) xvi, p. 475.
Polychorista, *Warr. A. M. N. H.* (6) xviii, p. 109 (1896).

Type, *C. tuberculalis*, Led., from N. America.

*Range.* N. America; W. Africa; Japan; Oriental region and Australasian subregion.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons flat and oblique; antennæ of male four-fifths length of fore wing and minutely ciliated; hind tibiæ with the outer spurs minute; abdomen of male long, the claspers and anal tuft large. Fore wing more or less produced at

apex, the outer margin oblique; veins 3 and 5 from near angle of cell. Hind wing with the cell short, the discocellulars being produced along vein 4 and veins 4 and 5 approximated for a short distance; 6, 7 stalked, 7 anastomosing strongly with 8.

Sect. I. (*Circobotys*). Fore wing with the apex greatly produced and subfalcate.

5112. **Crocidophora limbata**, *Moore, Lep. Atk.* p. 220, pl. 7, fig. 24; *C. & S.* no. 4123.

♂. Red-brown; palpi white below; abdomen ochreous at base and extremity. Fore wing with the costa white for three-fourths length, with a yellow fascia below it; the outer margin bright yellow. Hind wing fuscous with a rufous tinge; the costal and inner areas whitish; the margin bright yellow from apex to vein 2.

*Hab.* Sikhim; Bhután. *Exp.* 34 millim.

5113. **Crocidophora pallida**, *Moore, Lep. Atk.* p. 220; *C. & S.* no. 4163.

♂. Only differs from *sinisalis* in the apex of fore wing being greatly produced and subfalcate.

*Hab.* Khásis; Calcutta. *Exp.* 32 millim.

Sect. II. Fore wing with the apex less produced and not subfalcate.

A. *Antennæ of male not knotted and contorted or excised.*

a. *Fore wing without large fans of scales on underside below median nervure and beyond upper angle of cell.*

5114. **Crocidophora sinisalis**, *Wlk. Cat.* xviii, p. 635.

♂. Straw-colour suffused with fuscous; palpi fulvous, white below. Fore wing with the base and costa slightly tinged with fulvous; traces of an obliquely sinuous antemedial line; an obscure speck in cell and discocellular mark; a faint postmedial line curved from costa to vein 4, then retracted along median nervure to origin of vein 2 and dentate to inner margin; the marginal area slightly darker. Hind wing yellowish semihyaline fuscous, with traces of a waved postmedial line; both wings with the cilia white at tips.

*Hab.* Congo; Punjab. *Exp.* 30 millim.

5115. **Crocidophora fuscalis**, *Hmpsn. Ill. Het.* viii, p. 133, pl. 154, fig. 14.

♂. Differs from *sinisalis* in the fore wing being somewhat broader; the costa ochreous; the cilia pale yellow; the rest of the wing darker fuscous without trace of markings. Hind wing darker fuscous without trace of markings; the cilia pale yellow.

*Hab.* Nilgiris. *Exp.* 32 millim.

5116. **Crocidophora stenophilalis**, *Wlk. Cat.* xxxiv, p. 1407.
Circobotys marginalis, *Hmpsn. Ill. Het.* viii, p. 133, pl. 155, fig. 9 (♀).

Differs from *epicrocalis* in being pale orange-yellow. Fore wing without antemedial line; the postmedial line nearly straight from costa to vein 3; the marginal area only slightly tinged with fuscous from apex to vein 2 of hind wing, which has the postmedial line straight and oblique.

*Hab.* Nilgiris; Cambodia. *Exp.* 26 millim.

5117. **Crocidophora acutangulalis**, *Swinh. A. M. N. H.* (6) xiv p. 143.

♂. Bright yellow; palpi orange, white below and dark at tips; the vertex of head dark; abdomen ringed with white, a white and black dorsal spot on terminal segment. Fore wing very narrow with the apex acute; the costa fuscous brown; an oblique orange antemedial line; a dark discocellular lunule with orange line from it to inner margin; a dark postmedial speck on costa, with orange line from it to veiu 4; the outer area purplish fuscous and wide at apex. Hiud wing with very oblique orange line meeting an oblique postmedial line at vein 2; the outer area purplish fuscous from apex to vein 2.

*Hab.* Sikhim; Khásis; Margharita, Assam. *Exp.* 24–30 millim.

b. *Fore wing broader; male with the retinaculum formed by a very large fan of leaden-coloured scales from below median nervure, the median nervure bent upwards.*

a'. (Crocidophora). *Fore wing with a large fan of leaden-coloured scales beyond upper angle of cell and vein 7 bent downwards.*

5118. **Crocidophora ptyophora**, n. sp.

Fulvous orange; palpi white below; abdomen ringed with white, the anal tuft tipped with white. Fore wing bright yellow; the costal area fulvous suffused with fuscous; the fans of leaden scales showing through to the upperside; a sinuous orange antemedial line; a postmedial line straight from costa to vein 3, then retracted to origin of vein 2, and outwardly oblique to inner margin; a broad purplish-fuscous marginal band. Hind wing bright yellow, with orange fascia along median nervure met at vein 2 by an oblique postmedial line from the costa; a broad marginal purplish-fuscous band and series of marginal black specks from apex to vein 2.

Fig. 210.
*Crocidophora ptyophora*, ♂. 1/1.

*Hab.* Sikhim (*Dudgeon*); Tenasserim (*Doherty*). *Exp.* 30 millim. Type in B. M.

5119. **Crocidophora amœnalis**, *Snell. Trans. Ent. Soc.* 1890, p. 598.

♂. Differs from *ptyophora* in the fan of scales below median nervure of fore wing being short and not extending below origin of vein 2. Head, thorax, and abdomen more rufous. Fore wing suffused with rufous to end of cell and below it to the postmedial line; the inner edge of the dark outer area denticulate between veins 2 and 4. Hind wing suffused with rufous to the postmedial line; the inner area greyish fuscous.

*Hab.* Sikhim. *Exp.* 30 millim.

5120. **Crocidophora limbolalis**, *Moore, P. Z. S.* 1877, p. 615; *C. & S.* no. 4256.

Differs from *acutangulalis* in the fore wing being broad and slightly produced at apex; the basal costal area reddish; the discocellular lunule orange; the marginal band of both wings broad and reddish purple in tone with orange on its inner edge, excurved between veins 2 and 4 of fore wing, which has the margin and cilia orange; hind wing with the marginal black specks prominent.

*Larva*: a leaf-roller, and feeds on *Antiaris toxicaria*.

*Hab.* Bhután; Momeit, Burma; Tenasserim; Andamans. *Exp.* 20 millim.

5121. **Crocidophora fulvidalis**, *Warr. A. M. N. H.* (6) xvi, p. 475.
Lepidoplaga uniformis, *Warr. A. M. N. H.* (6) xvi, p. 476.

♂. Bright orange; palpi white below. Fore wing with traces of sinuous antemedial line; dark foveas below and beyond cell; a postmedial line slightly curved from costa to vein 2, then retracted to angle of cell and obliquely waved to inner margin; an obliquely curved diffused submarginal line. Hind wing with oblique postmedial line ending on vein 2; a submarginal line terminating on margin at vein 2.

The form *uniformis* is pale yellow.

*Hab.* Khásis. *Exp.* 22 millim.

5122. **Crocidophora multidentalis**, *Warr. A. M. N. H.* (6) xvi, p. 476.

♂. Differs from *distinctalis* in being pale ochreous.

*Hab.* Khásis. *Exp.* 32 millim.

b′. (Monocrocis). *Fore wing with a small postmedial glandular swelling on the costa, and an elongate groove of almost unscaled ribbed membrane above vein 7.*

5123. **Crocidophora lutusalis**, *Snell. Trans. Ent. Soc.* 1890, p. 597.

♂. Ochreous brown; head and abdomen more fuscous; palpi white below; frons with lateral white stripes. Fore wing with faint traces of a postmedial line excurved from vein 5 to 2, along which it is bent inwards; the marginal area slightly darker.

Hind wing with traces of an oblique postmedial line retracted along vein 2; the marginal area slightly darker from apex to vein 2.

*Hab.* Sikhim; Bhután; Canara. *Exp.* 34 millim.

5124. **Crocidophora flavofasciata**, *Moore, Lep. Atk.* p. 223, pl. 7, fig. 19; *C. & S.* no. 4092.

Head and thorax dull rufous; abdomen fuscous, the segments ringed with white. Fore wing dull rufous, with a postmedial straw-coloured band from subcostals of fore wing to vein 2 of hind wing, where it is bent inwards and becomes obsolescent, the edges of the band minutely dentate, the inner side toothed on vein 2 of fore wing; the outer margin ochreous with a series of dark specks; the costal and inner areas of hind wing paler.

*Hab.* Sikhim; Khásis. *Exp.* 32 millim.

c′. *Fore wing of male without sexual characters beyond the cell.*

5125. **Crocidophora evenoralis**, *Wlk. Cat.* xix, p. 1012.
Botys mandarinalis, *Leech, Entom.* 1889, p. 68, pl. 3, fig. 14.

Differs from *ptyophora* in the fan below median nervure being intermediate in length between it and *amœnalis*; abdomen rufous, with prominent white dorsal bands. Fore wing with the costal area prominently rufous; the postmedial line oblique, curved from costa to vein 2, then dentate; the marginal band half the width. Hind wing with the basal area fuscous to the postmedial line, which is much less produced along vein 2; the marginal band on apical area much narrower.

*Hab.* Japan; China; E. Pegu. *Exp.* 26 millim.

5126. **Crocidophora pionealis**, *Snell. Trans. Ent. Soc.* 1890, p. 624.

♂. Pale fulvous; palpi white below at base. Fore wing with black speck below middle of cell and black discocellular speck; an indistinct postmedial line arising from black spot on costa, excurved to vein 3, then bent inwards to below end of cell and with a black spot on it above vein 1; a marginal series of black specks. Abdomen and hind wing whitish, the latter with marginal series of black specks.

♀ with the apex of fore wing less produced.

*Hab.* Sikhim; Nágas. *Exp.*, ♂ 30, ♀ 26 millim.

5127. **Crocidophora fasciata**, *Moore, Lep. Atk.* p. 223, pl. 7, fig. 20; *C. & S.* no. 4090.

Dull rufous with a purplish tinge; palpi fulvous, white below; abdomen ringed with white, fulvous towards extremity; wings with a postmedial orange-yellow band, wide on disk of fore wing, narrowing to costa and inner margin, on hind wing wide from

costa to vein 2, then narrowing, curved inwards and not reaching inner margin; the margin and cilia orange, the latter fuscous at middle of hind wing.

*Hab.* Sikhim; Khásis. *Exp.* 30 millim.

5128. **Crocidophora distinctalis**, *Swinh. A. M. N. H.* (6) xiv, p. 144.

♂. Bright orange-yellow; palpi fulvous, white below; fore legs banded with fulvous. Fore wing with the costal area fulvous and fuscous; a dark discocellular spot; traces of an oblique postmedial line bent inwards at vein 3; both wings with a submarginal dark band of somewhat triangular shape.

*Hab.* Khásis. *Exp.* 32 millim.

5129. **Crocidophora discolorata**, *Swinh. A. M. N. H.* (6) xiv, p. 144.

♂. Bright straw-colour; palpi orange, white below; abdomen ringed with white. Fore wing with the basal half tinged with fulvous: the fovea large. Both wings with a postmedial line, traight from costa to vein 3, along which it is retracted, then almost obsolete; a broad marginal fulvous band terminating at vein 3 of hind wing.

*Hab.* Khásis. *Exp.* 24 millim.

5130. **Crocidophora pallidulalis**, *Swinh. A. M. N. H.* (6) xiv, p. 141.

♂. Very pale ochreous; palpi and collar rather darker. Fore wing with traces of waved antemedial line, of a speck in cell, and discocellular lunule; a rather more prominent obliquely curved minutely dentate postmedial line. Hind wing with traces of curved minutely dentate postmedial line.

*Hab.* Khásis. *Exp.* 30 millim.

B. *Antennæ of male slightly knotted and contorted at one-fifth from base.*

5131. **Crocidophora epicrocalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 275.
Circobotys marginalis, *Hmpsn. Ill. Het.* viii, p. 133, pl. 155, fig. 1 (♂).

♂. Orange. Fore wing with the basal half of costal area suffused with fuscous; an erect antemedial dark line; a discocellular speck; a postmedial line excurved from vein 6 to 3, then recurved to origin of vein 2 and waved to inner margin; the outer area purplish fuscous. Hind wing with sinuous postmedial line not reaching costa or inner margin; the outer area purplish fuscous from apex to vein 2.

♀. Fore wing broader and less produced at apex; the postmedial line straight from costa to vein 3; no dark marginal area but a fine dark marginal line, and the cilia dark from the apex of fore wing to vein 2 of hind wing, which has the postmedial line straight and oblique.

*Hab.* Nilgiris; Rangoon. *Exp.*, ♂ 22, ♀ 30 millim.

C. (Polychorista). *Antennæ of male with a curved tooth of scales from basal joint, the basal part of the shaft slightly thickened and contorted; hind wing with the base of costa expanded into a large folded lobe.*

5132. **Crocidophora calvatalis,** *Swinh. Trans. Ent. Soc.* 1890, p. 275.

♂. Fuscous; the head and collar tinged with fulvous; palpi fulvous. Fore wing with traces of antemedial dark line and of a postmedial line recurved from vein 5 to origin of vein 2. Hind wing with traces of oblique postmedial line.

*Hab.* Rangoon. *Exp.* 28 millim.

D. (Mimocomma). *Antennæ of male with the base of shaft excised, a tuft of hair beyond the excision.*

5133. **Crocidophora fulvimargo,** *Warr. A. M. N. H.* (6) xvi, p. 473.

♂. Fuscous; the head, collar, and extremity of abdomen ochreous. Fore wing with the costa and apical area ochreous; an indistinct obliquely curved antemedial line; the postmedial line excurved between veins 6 and 3, then retracted to below end of cell. Hind wing with traces of oblique postmedial line; the marginal area slightly tinged with ochreous. Underside ochreous.

*Hab.* Sikhim; Khásis; Momeit, Burma. *Exp.* 24 millim.

## Genus MARUCA.

Maruca, *Wlk. Cat.* xviii, p. 540 (1859).
Crochiphora, *Geyer, Hübn. Samml. exot. Schmett.* iv, 4, p. 12 (1832), non descr.
Siriocauta, *Led. Wien. ent. Mon.* 1863, p. 424.

Type, *M. testulalis*, Geyer.

*Range.* The tropical and subtropical zones.

Palpi porrect and triangularly scaled; the 3rd joint hidden by hair; maxillary palpi slightly dilated with scales; frons flat and oblique; antennæ slightly longer than the fore wing and annulated; legs long; tibiæ with the outer spurs about half the length of inner; abdomen long. Fore wing with vein 3 from angle of cell; 4, 5 closely approximated for a short distance; 7 curved and approximated to 8, 9, to which 10 also is approximated. Hind wing with vein 3 from angle of cell, which is about half the length of wing; 4, 5 closely approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

5134. **Maruca testulalis,** *Geyer, Hübn. Samml. exot. Schmett.* iv, 4, p. 12, figs. 629, 630; *C. & S.* no. 4229.
Hydrocampa aquatilis, *Boisd., Guér.-Mén., Icon. Règne Anim.* pl. 90, fig. 9.

Head, thorax, and abdomen fuscous brown; palpi white below.

Fore wing fuscous brown; the costal area tinged with fulvous; indistinct subbasal and antemedial lines across the cell and white spots below the cell; a lunulate black-edged white spot in end of cell; a maculate black-edged semihyaline band beyond the cell from below the costa to vein 2. Hind wing semihyaline white; the basal costal area fuscous and a spot at upper angle of cell; two indistinct sinuous postmedial lines; a marginal fulvous-brown and fuscous band from costa to vein 1 *c*, its inner edge very irregular.

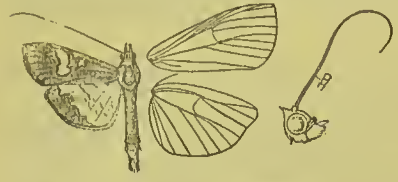

Fig. 211.—*Maruca testulalis*, ♂. ½.

*Hab.* Neotropical and Ethiopian regions; Japan; throughout the Oriental and Australian regions. *Exp.* 26–30 millim.

5135. **Maruca amboinalis**, *Feld. Reis. Nov.* pl. 135, fig. 24.
Siriocauta similialis, *Snell. Midd.-Sum.*, iv, *Lep.* p. 73.

Differs from *testulalis* in being blacker. Fore wing with the basal two-thirds of costa narrowly fulvous; the spots in and below cell almost or quite obsolete; the postmedial band narrower and reduced to a spot below vein 3. Hind wing with a black speck at lower angle of cell; the marginal band termiuating at vein 2.

*Hab.* Sikhim; Khásis; Nilgiris; Burma; Borneo; Amboiua. *Exp.* 30–32 millim.

## Genus ADELOÏDES.

Adeloïdes, *Warr. A. M. N. H.* (6) ix, p. 299 (1892).

Type, *A. cinerealis*, Moore.

*Range.* Sikhim; Bhután.

Palpi porrect, rather long and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated with scales; frons rounded; antennæ minutely ciliated, at least one and a half times the length of fore wing, the basal joint dilated and bulbous in both sexes; the vertex of head clothed with rough hair; abdomen of male extending far beyond the anal angle of hind wing, the claspers large and covered by the large anal tuft; tibiæ with the outer spurs minute. Fore wing of male narrow and produced at apex; vein 3 from well before angle of cell; 4, 5 from angle. Hind wing of male extremely ample; the cell short; vein 3 from the angle; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

5136. **Adeloïdes cinerealis**, *Moore, P. Z. S.* 1867, p. 94; *C. & S.* no. 4217.

♂. Head and thorax grey; palpi fulvous, white below; abdomen white. Fore wiug grey; the costa slightly tinged with fulvous;

faint traces of a discocellular lunule and curved postmedial line. Hind wing pure white.

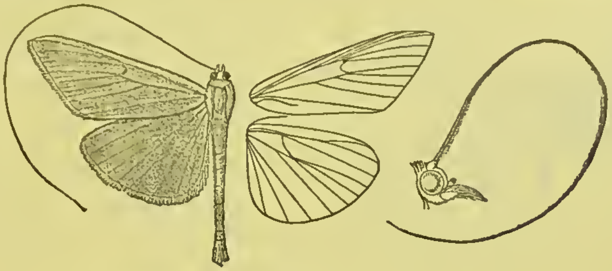

Fig. 212.—*Adeloïdes cinerealis*, ♂. 1/1.

♀ with the discocellular lunule and postmedial line of fore wing less obscure; hind wing with fuscous marginal band from apex to vein 2.

*Hab.* Sikhim. *Exp.*, ♂ 50, ♀ 44 millim.

5137. **Adeloïdes glaucoptera**, n. sp.

♂. Uniform silvery fuscous grey; palpi fulvous, white below; tibiæ and tarsi white; abdomen dorsally tinged with fulvous.

*Hab.* Bhután (*Dudgeon*). *Exp.* 46 millim. Type in B. M.

## Genus TETRIDIA.

Tetridia, *Warr. A. M. N. H.* (6) vi, p. 477 (1890).

Type, *T. caletoralis*, Wlk.

*Range.* N.E. India; Ceylon; Burma; Malayan subregion to Celebes.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated with scales, frons oblique; antennæ of male minutely ciliated and considerably longer than fore wing, of female about the length of fore wing; fore and mid tibiæ of male fringed with hair on outer side; the thorax with tufts of hair below near mid legs; abdomen of male with the anal tuft long. Fore wing with the apex produced; the outer margin oblique; vein 3 from near angle of cell; 4, 5 from angle; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with the cell short, especially in male; vein 3 from the angle; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8; vein 6 in male curved downwards.

5138. **Tetridia caletoralis**, *Wlk. Cat.* xviii, p. 651; *C. & S.* no. 4233.
Botys vinacealis, *Moore, P. Z. S.* 1877, p. 619; *C. & S.* no. 4236.
Polythlipta albicaudalis, *Snell. Tijd. v. Ent.* xxiii, p. 221, *and* xxvi, pl. 8, figs. 7, 7 *a, b, c*.

♂. Red-brown with a vinous tinge; palpi white below; fore tibiæ and tarsi marked with white; mid tibiæ and tarsi white, the

tibial fringe of hair fulvous; abdomen with a white streak on anal tuft. Fore wing with waved antemedial black line; a waved discocellular line; both wings with a minutely crenulate postmedial line, nearly straight from costa to vein 3, then retracted to below end of cell, and on hind wing terminating at anal angle; a marginal series of black specks.

Fig. 213.—*Tetridia calctoralis*, ♂. 1/1.

♀ pale ochreous rufous. Fore wing with the costa tinged with fuscous; the margin and cilia of both wings fuscous; the legs not marked with white.

*Hab.* Sikhim; Khásis; Sibságar; Ceylon; Burma; Andamans; Borneo; Celebes. *Exp.* 34 millim.

## Genus PACHYNOA.

Pachynoa, *Led. Wien. ent. Mon.* 1863, p. 391.
Pitacanda, *Moore, Lep. Ceyl.* iii, p. 334 (1886).

Type, *P. thoosalis*, Wlk.
*Range.* E. Africa; Oriental region.

Palpi porrect, dilated with scales above and enclosing a hollow in the male, the 3rd joint hidden by hair; maxillary palpi minute and filiform; frons rounded; antennæ of male minutely serrate on upperside, pectinated on lower side, of female thickened; build stout; fore tibiæ and tarsi fringed with hair; mid tibiæ fringed with hair, hind tibiæ with a tuft of hair on outer side near base;

Fig. 214.—*Pachynoa thoosalis*, ♂. 1/1.

the spurs rather short. Fore wing produced at apex; the outer margin oblique; the inner margin lobed at middle; vein 1 *a* forming a fork with 1 *b*; 3 from angle of cell; 4, 5 approximated for a short distance; 10 closely approximated to 8, 9. Hind wing with vein 3 from angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing strongly with 8.

SECT. I. (*Pachynoa*). Hind tibiæ of male strongly dilated before middle and at extremity, the terminal spurs absent; antennæ with the branches short; hind wing with a vesicular lobe clothed with hair on inner margin; fore wing with a large shallow fovea on vein 1 above the lobe of inner margin.

5139. **Pachynoa thoosalis**, *Wlk. Cat.* xviii, p. 737; *Moore, P. Z. S.* 1877, pl. 60, fig. 16; *C. & S.* no. 4170.

Pachynoa walkeri, *Led. Wien. ent. Mon.* 1863, p. 391, pl. 13, fig. 2.

Straw-coloured; palpi black at sides; head, thorax, and abdomen mostly suffused with fuscous; male with the anal tuft black. Fore wing with subbasal and antemedial fuscous patches which may be conjoined and occupy the whole basal area; a black spot in end of cell; the whole outer half of the wing occupied by a fuscous patch except some triangular patches on costa and outer margin. Hind wing with medial fuscous blotches from cell to inner margin, and an oblique series from costa beyond middle to anal angle; an obscure maculate submarginal line.

*Hab.* Sikhim; Andamans; Celebes; Amboina; Ceram. *Exp.* 40–44 millim.

SECT. II. (*Pitacanda*). Hind tibiæ of male not dilated, the terminal spurs present; fore wing with no fovea; hind wing with no vesicle on inner margin.

A. *Antennæ of male with the branches on lower side short.*

5140. **Pachynoa sabelialis**, *Guen. Delt. & Pyr.* p. 326; *C. & S.* no. 4168.

Botys elycesalis, *Wlk. Cat.* xix, p. 995; *C. & S.* no. 4028.

Orange-yellow; palpi white below, in male quadrately dilated with leaden-coloured scales; fore legs banded with white; a white shoulder-spot; the thorax fulvous; basal half of abdomen vinous red. Fore wing with the basal area and basal two-thirds of costal area suffused with purplish; a curved fuscous antemedial line; a large purplish patch at lower angle of cell with a line from it to inner margin; a postmedial line bent outwards and maculate from vein 5 to inner margin; a maculate submarginal line bent outwards at vein 5. Hind wing paler; a fuscous medial line from vein 2 to inner margin; a maculate sinuous postmedial line from vein 6 to anal angle, and a similar submarginal line from the costa to vein 2.

*Hab.* Kilima'njaro; Simla; Calcutta; Burma; Andamans. *Exp.* 32 millim.

*5141. **Pachynoa? maccalis**, *Led. Wien. ent. Mon.* 1863, p. 466, pl. 9, fig. 14; *C. & S.* no. 4064.

♂. Head, thorax, and abdomen white; collar with paired purple-brown stripes; abdomen with dorsal and lateral series of diamond-shaped marks. Wings with yellow in the interspaces of outer area. Fore wing with short subbasal purple-brown band; a rather irregular antemedial band; bands across middle of cell and discocellulars; two strigæ below end of cell; a series of streaks in interspaces beyond the cell of both wings, reduced to spots towards costa, longest between veins 5 and 2, and shorter again towards inner margin; cilia chequered with brown.

*Hab.* Khásis. *Exp.* 46 millim.

5142. **Pachynoa spilosomoides**, *Moore, Lep. Ceyl.* iii. p. 334, pl. 183, fig. 10; *C. & S.* no. 4125.

Head, thorax, and abdomen bright yellow and white; antennæ black; collar and tegulæ with blue-black spots; abdomen with lateral black patches on 1st segment, the next four segments with dorsal and paired lateral quadrate blue-black patches, a dorsal spot on 7th and terminal segments. Fore wing bright yellow; the veins white; a blue-black basal patch; four subbasal spots; an antemedial curved maculate band; a discocellular patch; a postmedial inwardly-oblique band of blue-black patches in the interspaces, with spots beyond them from costa to vein 3. Hind wing yellow and white; the male with a black patch on middle of inner margin.

The Nilgiri female has on the hind wing three submarginal blue-black spots in the interspaces between veins 2 and 5.

*Hab.* Sikhim; Calcutta; Khandála; Bangalore; Nilgiris; Ceylon. *Exp.* 46 millim.

5143. **Pachynoa mineusalis**, *Wlk. Cat.* xvii, p. 481; *C. & S.* no. 4323.

♀. White; the head, thorax, and abdomen slightly tinged with yellow; fore legs, thorax, and 2nd segment of abdomen spotted with black. Fore wing with some black spots on basal area; an antemedial black band; a large black discocellular spot; two small spots beyond lower angle of cell; the postmedial line highly excurved between veins 5 and 2, then retracted to below end of cell; a submarginal series of spots, the three between veins 5 and 2 displaced outwards, the spot below vein 2 displaced inwards. Hind wing with discocellular spot; a medial line from cell to inner margin; a sinuous postmedial line; a submarginal sinuous series of spots; a fine orange marginal line and line through the cilia.

*Hab.* Moulmein; Rangoon. *Exp.* 26 millim.

B. *Antennæ of male with the branches on lower side long.*

5144. **Pachynoa pectinicornalis**, *Guen. Delt. & Pyr.* p. 326; *C. & S.* no. 4167.

Differs from *sabelialis* in being suffused with dull fulvous brown, the marginal area of fore wing yellower; hind wing pale, with the marginal area yellower.

*Hab.* Cutch; Bombay; Poona; Bengal. *Exp.* 34 millim.

5145. **Pachynoa hypsalis**, n. sp.

♂. Head, thorax, and abdomen orange-yellow; palpi and basal joint of antennæ black; thorax spotted with black; abdomen with dorsal and paired lateral series of black spots; wings pale yellow. Fore wing with the base orange, with a basal black spot and two curved series of black spots; a pale fuscous patch in end of cell;

a diffused oblique pale fuscous band bent inwards below the end of cell; traces of a pale fuscous diffused submarginal band. Hind wing with the hair on inner marginal lobe blackish; traces of pale fuscous maculate postmedial and submarginal bands.

*Hab.* Sikhim (*Möller*). *Exp.* 44 millim. Type in coll. Elwes.

5146. **Pachynoa fuscilalis,** *Hmpsn. Ill. Het.* viii, p. 133, pl. 155, fig. 2.

♂. Head and thorax purplish fuscous; palpi black, white below; abdomen with the 1st segment rufous, the next three purplish, the terminal segments orange. Fore wing with the basal area purplish fuscous, with a curved dark antemedial line, extending along the costa and in the cell to the postmedial line, which is straight from the costa to vein 3, where it is retracted to below end of cell; the inner and outer areas orange; a black spot in cell and discocellular lunule. Hind wing paler; a dark mark on inner basal area; a sinuous postmedial line bent inwards at vein 2; the apex slightly suffused with fuscous.

*Hab.* Nilgiris. *Exp.* 24 millim.

## Genus PARBATTIA.

Parbattia, *Moore, Lep. Atk.* p. 225 (1888).

Type, *P. vialis*, Moore.

*Range.* Sikhim.

Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons rounded; antennæ of male minutely ciliated; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the apex produced, the outer margin oblique; vein 3 from near angle of cell; 4, 5 from angle; 7 straight and not approximated to 8, 9; male with a fovea below the cell at origin of vein 2. Hind wing with the costa lobed and fringed with hair near base; the cell extremely short and the discocellulars produced for a long way along median nervure so that veins 3, 4, 5 appear to be stalked; 6, 7 from upper angle, 7 anastomosing strongly with 8.

5147. **Parbattia vialis,** *Moore, Lep. Atk.* p. 225, pl. 7, fig. 30; *C. & S.* no. 4538.

♂. Head fuscous; palpi black, white below; thorax whitish; abdomen black ringed with white. Fore wing blackish brown to the postmedial line, which is nearly straight from costa to vein 5, then incurved to middle of inner margin, the cell and area below it variegated with grey; black spots in cell and on discocellulars and two streaks on bases of veins 3, 4; a pale band beyond the

Fig. 215.—*Parbattia vialis*, ♂. 1/1.

postmedial line, very broad towards inner margin; the marginal area black-brown, wide towards costa. Hind wing pale, with a series of dark specks on the veins from costa to vein 2 just beyond the middle; the marginal area suffused with fuscous, with a series of black specks on the margin.

*Hab.* Sikhim. *Exp.* 32 millim.

## Genus DISCOTHYRIS.

Discothyris, *Warr. A. M. N. H.* (6) xvi, p. 473 (1895).

Type, *D. ferruginata*, Moore.

*Range.* Sikhim.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons rounded; antennæ of male ciliated; tibiæ with the outer spurs about half the length of inner. Fore wing with the costa arched towards apex, which is acute; the outer margin angled at vein 4; vein 3 from close to angle of cell; 4, 5 from angle, 7 curved and approximated for a short distance to 8, 9, to which 10 also is approximated. Hind wing with the outer margin produced to a point at vein 6 and excurved at middle; vein 3 from angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8; a large tuft of hair on median nervure at lower angle of cell.

5148. **Discothyris ferruginata**, *Moore, Lep. Atk.* p. 209; *C. & S.* no. 4280.

♂. Pale ferruginous; palpi white at base below. Fore wing with indistinct outwardly-oblique sinuous antemedial line; an indistinct postmedial line highly curved from costa to vein 2 and angled outwards in interno-median interspace; the margin slightly suffused with fuscous. Hind wing pale; the area below the cell ferruginous; a postmedial dark line sinuous from costa to vein 4, then somewhat bent outwards and waved to near anal angle; the apex slightly suffused with fuscous; the cilia blackish at base, pale at tips.

Fig. 216.—*Discothyris ferruginata*, ♂. $\frac{1}{1}$.

*Hab.* Sikhim. *Exp.* 22 millim.

5149. **Discothyris vestigialis**, *Snell. Trans. Ent. Soc.* 1890, p. 628.

♂. Differs from *ferruginata* in the patagia being white-tipped; the fore wing paler and semihyaline; the antemedial line obliquely curved; the postmedial line oblique and strongly marked from costa to vein 6, where it is angled, then waved, reduced to specks on the veins and inwardly oblique to inner margin just beyond

middle. Hind wing with the postmedial line maculate from vein 3 to inner margin, the spots on veins 2 and 1*b* black and prominent.
*Hab.* Sikhim. *Exp.* 22 millim.

## Genus NOMOPHILA.

Nomophila, *Hübn. Verz.* p. 368 (? 1818).

Type, *N. noctuella*, Schiff.
*Range.* Universally distributed.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons rounded; antennæ of male with long cilia; tibiæ with the outer spurs about half the length of the inner; abdomen of male with lateral tufts on the terminal segments. Fore wing long and narrow; the apex rounded; vein 3 from well before angle of cell; 4, 5 from the angle; 10 approximated to 8, 9. Hind wing ample; veins 4, 5 closely approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

5150. **Nomophila noctuella**, *Schiff. Wien. Verz.* p. 136; *C. & S.* no. 4530.
Pyralis hybridalis, *Hübn. Samml. eur. Schmett., Pyr.* figs. 114, 184.
Nephopteryx indistinctalis, *Wlk. Cat.* xxvii, p. 59.

Grey-brown; palpi white below at base; abdomen with paired sublateral white stripes. Fore wing with a black streak below basal half of cell; large dark-edged brown orbicular stigmata in and below middle of cell and a reniform discocellular stigma; a dentate postmedial line retracted at vein 3 to below the end of cell; a more or less prominent highly dentate submarginal line and series of dentate marginal marks; a dark line through the cilia; the wing may be suffused with grey and all the markings dark and prominent, or may be nearly uniform brown or fuscous with the markings obscured. Hind wing paler, with the apical area slightly darker; the cilia whitish at tips.

Fig. 217.—*Nomophila noctuella*, ♂. 1/1.

*Hab.* Universally distributed. *Exp.* 24–34 millim.

## Genus PACHYZANCLA.

Pachyzancla, *Meyr. Trans. Ent. Soc.* 1884, p. 315.
Acharana, *Moore, Lep. Ceyl.* iii, p. 285 (1885).
Piloptila, *Swinh. A. M. N. H.* (6) xiv, p. 142 (1894).

Type, *P. stultalis*, Wlk.
*Range.* The tropical and warmer temperate zones.

Differs from *Pyrausta* in the hind wings having the cell somewhat shorter and veins 4, 5 approximated for a short distance; the outer spurs half the length of the inner.

SECT. I. Mid femora of male immensely dilated and clothed with large smooth scales on inner side.

A. *Fore wing of male with the basal half of costa fringed below with long thick black hair; fore legs clothed with rough hair near the femoro-tibial joint.*

5151. **Pachyzancla licarsisalis**, *Wlk. Cat.* xviii, p. 686.
Botys pharaxalis, *Wlk. Cat.* xviii, p. 725; *C. & S.* no. 4112 (part.).
Botys immundalis, *Wlk. Cat.* xxxiv, p. 1448.

Fuscous; palpi white below. Fore wing with outwardly-oblique sinuous dark antemedial line; a speck in cell and discocellular lunule; a minutely dentate postmedial line bent outwards between veins 4 and 2, along which it is retracted to below end of cell. Hind wing with discocellular speck; an indistinct minutely dentate postmedial line bent outwards between veins 4 and 2; traces of a minutely dentate submarginal line; both wings with fine pale marginal line.

Fig. 218.—*Pachyzancla licarsisalis*, ♂. 1/1.

*Hab.* Japan; China; India; Ceylon; Malacca; Borneo; Java; Australia; Fiji; Marshall Islands. *Exp.* 24–26 millim.

B. (Acharana). *Fore wing with no fringe of hair on underside of costa; fore legs normal.*

5152. **Pachyzancla phœopteralis**, *Guen. Delt. & Pyr.* p. 349.
Botys vestalis, *Wlk. Cat.* xviii, p. 579.
Botys otreusalis, *Wlk. Cat.* xviii, p. 637; *Moore, Lep. Ceyl.* iii, pl. 180, fig. 11; *C. & S.* no. 4112 (part.).
Botys triarialis, *Wlk. Cat.* xviii, p. 639.
Botys abstrusalis, *Wlk. Cat.* xviii, p. 663.

Differs from *licarsisalis* in being usually slightly darker, with a slight purplish suffusion, and the discocellular spot of fore wing more prominent.

*Hab.* Neotropical and Ethiopian regions; Aden; throughout India, Ceylon, and Burma; Andamans; Solomons. *Exp.* 22–30 millim.

SECT. II. Mid femora of male not dilated nor clothed with large scales.

A. (Piloptila). *Male with the costa of fore wing fringed below with thick black hair at base.*

5153. **Pachyzancla nigricornalis**, *Swinh. A. M. N. H.* (6) xiv, p. 142.

Greyish fuscous; palpi brown, white below. Fore wing with traces of an obliquely-waved antemedial dark line; a black

discocellular spot; a postmedial line minutely dentate from costa to vein 2 and bent outwards between veins 5 and 2, along which it is retracted, then developed into a patch above inner margin. Hind wing with discocellular black speck; a postmedial line highly bent out, minutely dentate and fine between veins 5 and 2; both wings with the cilia pale brown, with a series of fuscous specks.

*Hab.* Khásis. *Exp.* 24 millim.

B. *Male with no fringe of hair on costa below.*

a. *Male with no long tuft of hair and scales from the patagia extending beyond the metathorax.*

5154. **Pachyzancla rufescentalis**, n. sp.

♂. Dark rufous; palpi white below at base. Fore wing with slight pale mark at base of inner margin; a very indistinct outwardly-oblique antemedial rufous line; an obscure discocellular lunule with pale outer edge; a minutely waved oblique postmedial rufous line excurved below costa; a marginal series of short striæ; cilia with dark line at base and through middle. Hind wing fuscous with marginal striæ from apex to vein 2; cilia pale with dark line at base. Underside with curved postmedial series of specks.

*Hab.* Tenasserim (*Doherty*). *Exp.* 24 millim. Type in coll. Druce.

5155. **Pachyzancla intensalis**, *Swinh. A. M. N. H.* (6) xiv, p. 143.
Ebulea ochripunctalis, *Warr. A. M. N. H.* (6) xviii, p. 111.

♂. Head and thorax dark chestnut-red; palpi whitish below; abdomen fuscous with pale segmental rings, the anal tuft rufous. Fore wing dark chestnut, with a diffused dark patch on basal inner area; an indistinct minutely dentate oblique antemedial line; a large diffused fuscous patch beyond lower angle of cell; a minutely dentate postmedial line excurved from costa to vein 2, along which it is retracted to below angle of cell; a series of minute pale marginal specks; cilia black and rufous, the tips whitish. Hind wing fuscous, the outer area slightly suffused with rufous; traces of a curved minutely dentate postmedial line; cilia fuscous, pale at tips. Underside pale reddish, with postmedial curved series of black specks on each wing.

*Hab.* Sikhim; Khásis. *Exp.* 28 millim.

5156. **Pachyzancla ustulalis**, n. sp.

Differs from *intensalis* in being browner, the red suffusion confined to head, thorax, and base of fore wing. Fore wing with the discal fuscous patch smaller; the postmedial line somewhat reduced to specks and oblique from vein 3 to inner margin, not retracted. Hind wing with the postmedial line less excurved.

*Hab.* Ceylon (*Green*). *Exp.* 26 millim. Type in B. M.

5157. **Pachyzancla callistalis**, n. sp.

♀. Head rufous; palpi white below; thorax golden yellow and rufous; abdomen fuscous. Fore wing golden yellow suffused with bright rufous, leaving the cell, the area below it, and apical area yellow; the veins rufous; an oblique antemedial dark line from costa near base to middle of inner margin, where it is met by the postmedial line, which is very highly angled outwards to near the margin on vein 6; a marginal series of pale specks; the cilia dark brown. Hind wing dark brown, with traces of marginal series of pale specks. Underside suffused with fuscous; both wings with dark discocellular lunule and curved postmedial line. Tarsi banded black and white.

*Hab.* Margharita, Assam (*Doherty*). *Exp.* 28 millim. Type in coll. Elwes.

5158. **Pachyzancla marginalis**, *Warr. A. M. N. H.* (6) xviii, p. 115.
Goniorhynchus obliquistriga, *Warr. A. M. N. H.* (6) xviii, p. 115.

♂. Bright yellow; palpi and frons black-brown, the former white below; abdomen ringed with fuscous. Fore wing with the basal half of costa brown; traces of a subbasal line; a prominent erect antemedial line; a discocellular lunule conjoined to the costa, and by fasciæ on veins 3 and 5 to the postmedial line, which is minutely dentate from the costa to vein 2, then retracted to angle of cell; the fascia on vein 3 broad and joining at outer angle the marginal band which runs round the apex. Hind wing with discocellular spot; the postmedial line running out to acute angles on veins 5 and 3, where it touches the marginal brown line, then retracted to angle of cell; cilia of both wings brown, with an ochreous line at base.

*Hab.* Sikhim; Khásis. *Exp.* 26 millim.

5159. **Pachyzancla subdentalis**, *Swinh. A. M. N. H.* (6) xiv, p. 147.

♂. Fuscous. Fore wing with obscure antemedial dark line; both wings with black discocellular lunule; sinuous dark postmedial line outlined with whitish most strongly towards costa, excurved and minutely dentate between veins 6 and 2; a dark maculate marginal line and whitish specks at base of cilia.

*Hab.* Khásis. *Exp.* 24 millim.

5160. **Pachyzancla cynaralis**, *Wlk. Cat.* xviii, p. 672; *C. & S.* no. 4051.
Hapalia marginalis, *Moore, Lep. Ceyl.* iii, p. 338, pl. 182, fig. 13; *C. & S.* no. 4098.

Differs from *ægrotalis* in the head and collar being fuscous. Fore wing with the basal half of costa more broadly fuscous, especially at base; a marginal fuscous band broad at apex and outer angle, indented with a sinus between veins 5 and 2. Hind wing with the apical area fuscous; a minutely dentate submarginal line; both wings with marginal series of dark specks.

*Hab.* Sikhim; Ceylon. *Exp.* 22 millim.

5161. **Pachyzancla ægrotalis**, *Zell. K. Vet.-Ak. Handl.* 1852, p. 38.
Botys mutualis, *Zell. t. c.* p. 40; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 15; *C. & S.* no. 4334 (part.).
Botys verminalis, *Guen. Delt. & Pyr.* p. 348.
Botys admensalis, *Wlk. Cat.* xviii, p. 652; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 10; *C. & S.* no. 4083.
Botys basalis, *Wlk. Cat.* xxxiv, p. 1404; *C. & S.* no. 4333.
Botys apertalis, *Wlk. Cat.* xxxiv, p. 1450.
Acharana rudis, *Warr. A. M. N. H.* (6) ix, p. 435.
Acharana simplex, *Warr. A. M. N. H.* (6) ix, p. 436.
Acharana subalbescens, *Swinh. A. M. N. H.* (6) xiv, p. 147.
Pachyzancla honestalis, *Warr. A. M. N. H.* (6) xvii, p. 97.
Acharana subænescens, *Warr. A. M. N. H.* (6) xviii, p. 113.

♂. Whitish with an ochreous tinge; palpi fuscous, white below; abdomen with a pair of black spots on 3rd segment. Fore wing with the costa fulvous and suffused with fuscous towards base; a black speck near base of inner margin; an outwardly-oblique sinuous antemedial line; a prominent black speck in cell, and both wings with a large discocellular spot and minutely dentate postmedial line bent outwards between veins 4 and 2, along which it is retracted to below end of cell; the margin dark; the marginal area of fore wing and apical area of hind wing sometimes broadly suffused with fuscous.

♀ more uniformly ochreous tinged with fulvous.

The form *rudis* from Japan, China, and India is dark fuscous in tone.

*Hab.* W. & S. Africa; Nilgiris; Ceylon; Java. *Exp.* 22–30 millim.

b. (Pachyzancla). *Patagia of male with a tuft of long hair and scales extending beyond the metathorax.*

5162. **Pachyzancla stultalis**, *Wlk. Cat.* xviii, p. 669; *C. & S.* no. 4334 (part.).
Botys basistrigalis, *Wlk. Cat.* xxxiv, p. 1443.

Differs from *ægrotalis* in being uniformly darker and more suffused with fuscous. Fore wing with the antemedial line more prominent; the postmedial line of both wings with more or less prominent pale outer edge.

*Hab.* China; throughout India, Ceylon, and Burma; Andamans; Sumatra; Java; Borneo; Celebes; Australia. *Exp.* 22–28 millim.

## Genus **LOXONEPTERA**, nov.

Type, *L. carnealis*, Hmpsn.
*Range.* Sikhim; Assam.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons produced to a flattened plate with rounded edge; antennæ of male minutely ciliated; tibiæ with the outer spurs minute; mid tibiæ of male dilated with a fold containing a tuft of long hair; abdomen of male with very large paired lateral tufts from just beyond middle. Fore wing of male with fringe of long hair on base of inner margin, which is excised towards outer angle and bears a curved tuft of hair; vein 3 from

before angle of cell; 4, 5 from angle; 7 curved and approximated to 8, 9, to which 10 also is approximated. Hind wing of male with fringe of hair on median nervure towards angle of cell; a small tuft below vein 2 and a fringe on vein 1 *c*; vein 3 from before angle of cell; 4, 5 somewhat approximated for a short distance; 6, 7 from upper angle.

5163. **Loxoneptera carnealis**, n. sp.

♂. Pale flesh-colour; palpi fulvous, white at base below; abdomen ochreous tinged with fuscous. Fore wing with the veins rather darker; a black discocellular speck. Hind wing fuscous, with large ochreous costal patch from before middle to near apex, joined by a curved patch below the cell from near the base; the anal angle ochreous. Underside pale; fore wing with the cell and disk suffused with fuscous.

Fig. 219.—*Loxoneptera carnealis*, ♂. 1/1.

*Hab.* Sikhim (*Möller*); Khásis. *Exp.* 36 millim. Type in coll. Elwes.

## Genus PROŒDEMA, nov.

Type, *P. inscisale*, Wlk.

*Range.* N.E. India; Ceylon; Malayan subregion to N. Australia.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons with a rounded prominence; antennæ thickened and flattened; tibiæ with the outer spurs half the length of the inner; male with the claspers long and exserted. Fore wing rather narrow; the apex rounded; vein 3 from before angle of cell; 4, 5 from angle; 7 curved and approximated to 8, 9. Hind wing with veins 4, 5 approximated for a short distance; 6, 7 stalked, 7 anastomosing with 8.

5164. **Proœdema inscisale**, *Wlk. Cat.* xxxiv, p. 1410; *Moore, Lep. Ceyl.* iii, pl. 181, fig. 1; *C. & S.* no. 4137.

Palpi orange; head and thorax purplish brown; abdomen fuscous, the basal and terminal segments tinged with fulvous. Fore wing purplish fuscous; the costal area orange-yellow, expanding before middle into a triangular patch with its apex on vein 1, and again on apical area into a patch narrowing to outer angle. Hind wing pale brownish fuscous; the cilia yellow.

Fig. 220.—*Proœdema inscisale*, ♂. 1/1.

*Hab.* Sikhim; Ceylon; Borneo; New Guinea; Australia. *Exp.* 36 millim.

## Genus PHLYCTÆNODES.

Phlyctænodes, *Guen. Delt. & Pyr.* p. 173 (1854).
Loxostege, *Hübn. Verz.* p. 352 (? 1818), non descr.
Spilodes, *Guen. Delt. & Pyr.* p. 379.
Dosara, *Wlk. Cat.* xix, p. 828 (1859).
Eurycreon, *Led. Wien. ent. Mon.* 1863, p. 376.

Type, *P. pustulalis*, Hübn., from Europe.
*Range.* The tropical and temperate zones.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons with a sharp conical prominence; antennæ of male almost simple; legs smoothly scaled. Fore wing with the costa arched towards apex; vein 3 from near angle of cell; 4, 5 from angle. Hind wing with vein 3 from close to angle of cell; 4, 5 from the angle and more or less approximated; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. Hind tibiæ of male with the outer spurs one-half to three-fourths length of the inner.

5165. **Phlyctænodes nubilalis**, *Hmpsn. Ill. Het.* viii, p. 132, pl. 154, fig. 12.

Fuscous brown; palpi white below; abdomen ringed with white. Fore wing with indistinct sinuous ante- and postmedial lines, the latter highly excurved from vein 5 to 2, along which it is sharply retracted to near median nervure; very indistinct dark ocelli in cell and on discocellulars. Hind wing with dark spot on discocellulars; an indistinct postmedial line highly excurved from vein 5 to 2, where it is sharply retracted; both wings with a marginal series of dark spots.

*Hab.* Nilgiri plateau. *Exp.* 22 millim.

5166. **Phlyctænodes sticticalis**, *Linn. Syst. Nat.* i, 2, p. 883; *Dup. Lép. Fr.* viii, pl. 215, fig. 5; *C. & S.* no. 4146.

Fuscous brown with a rufous tinge; palpi white below. Fore wing with grey streaks in, beyond, and below cell; a quadrate whitish spot in end of cell between the oblique orbicular and reniform stigmata, which are obscure; an irregular and minutely dentate postmedial dark line angled inwards below cell; a yellow marginal line expanding at vein 6. Hind wing more fuscous, with indistinct sinuous dark postmedial line with pale outer edge; cilia of both wings leaden grey. Underside pale ochreous, with the stigmata of fore wing prominently dark and postmedial and submarginal lines prominent on both wings.

*Hab.* N. America; Europe; Quetta. *Exp.* 24 millim.

5167. **Phlyctænodes nudalis**, *Hübn. Samml. eur. Schmett., Pyr.* fig. 90.

Pyralis interpunctalis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 128; *C. & S.* no. 4175.

Botys unipunctalis, *Dup. Lép. Fr.* viii, p. 166, pl. 221, fig. 5.
Botys bipunctalis, *Dup. Lép. Fr.* viii, p. 167, pl. 221, fig. 6.
Botys pauciferalis, *Wlk. Cat.* xxxiv, p. 1413; *C. & S.* no. 4071.

♂. Bright straw-colour. Fore wing quite uniform or with dark spots at end of cell and below its middle, and a sinuous postmedial series, any of which may be absent. Hind wing paler.

♀ usually darker, the hind wing being tinged with fuscous and often with traces of a postmedial line.

The whole insect is sometimes suffused with fuscous.

*Hab.* S. Europe; W. Africa; Syria; Aden; Punjab; Coimbatore; Ceylon. *Exp.* 20–24 millim.

5168. **Phlyctænodes massalis,** *Wlk. Cat.* xviii, p. 792.
Dosara cœlatalis, *Wlk. Cat.* xix, p. 829; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 22; *C. & S.* no. 4536.

Ochreous; the head, thorax, and fore wing more or less completely suffused with ferruginous; palpi white below at base. Fore wing with the costa and a streak below median nervure ochreous, the latter ending in a dark spot; an oblique ochreous postmedial line with black on its inner edge from vein 5 to 2, sending teeth inwards at veins 5 and 2, and in the ochreous specimens with ferruginous suffusion on its inner edge from the costa to vein 5; a marginal series of black lunules; the cilia fuscous. Hind wing pale fuscous or pale ochreous, with the marginal area slightly suffused with fuscous.

Fig. 221.
*Phlyctænodes massalis,* ♂. $\frac{1}{1}$.

*Hab.* W. Africa; N.W. Himalayas; Punjab; Karáchi; Poona; Ceylon; Australia. *Exp.* 18 millim.

5169. **Phlyctænodes palmalis,** *Swinh. P. Z. S.* 1884, p. 525, pl. 48, fig. 11; *C. & S.* no. 4156.

♀. Fulvous. Fore wing with a diffused fuscous band from base of costa, conjoined at inner margin to a postmedial band of fuscous suffusion on the inner edge of the sinuous white submarginal line; a series of dark marginal strigæ. Hind wing pale, with indistinct dark postmedial line becoming obsolete towards inner margin; some rufous suffusion and a series of dark strigæ on outer margin.

*Hab.* Aden; Karáchi. *Exp.* 18 millim.

5170. **Phlyctænodes simplalis,** *Swinh. P. Z. S.* 1889, p. 421.

♀. White, head and thorax ferruginous; palpi white below abdomen banded with ferruginous. Fore wing with the costal area ferruginous; an indistinct subbasal band; an erect antemedial line; a spot in cell and lunule at end of it; a postmedial obscurely dentate band very much incurved below vein 4; a dentate

submarginal band and marginal series of spots. Hind wing with cell-speck; a postmedial band incurved below vein 4; a submarginal dentate band and marginal series of spots; both wings with the cilia ferruginous.

*Hab.* Sind. *Exp.* 20 millim.

SECT. II. Hind tibiæ of male with the outer medial and distal spurs minute.

5171. **Phlyctænodes palealis**, *Schiff. Wien. Verz.* p. 123.
Phalæna flaveolata, *Rott. Naturf.* xi, p. 80.
Pyralis selenalis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 177.
Botys anaxisalis, *Wlk. Cat.* xviii, p. 658; *C. & S.* no. 4043.

Pale sulphur-yellow; palpi black; abdomen white at base. Fore wing with the costa black. Hind wing white, with an indistinct postmedial blackish band from costa to vein 2, prominent on underside; a more or less developed apical black patch. Underside of fore wing white, with the veins and costal area black; a postmedial black band and apical patch.

*Hab.* Europe; Syria; Japau; China; N.W. Himalayas. *Exp.* 30–36 millim.

5172. **Phlyctænodes verticalis**, *Linn. Syst. Nat.* i, 2, p. 882.
Pyralis limbalis, *Schrank, Fauna Boica*, ii, 2, p. 64.
Botys cinctalis, *Treitschke, Schmett. Eur.* vii, p. 97.

Pale yellow; head, thorax, and abdomen variegated with fuscous; palpi white below. Fore wing with the veins dark; an oblique sinuous antemedial line; an annulus in cell and discocellular ovate mark; a minutely dentate postmedial line straight from costa to vein 2, along which it is retracted to below angle of cell; a miuutely dentate somewhat diffused submarginal line; the costa and margin often blackish. Hind wing with dark postmedial line slightly retracted at vein 2; a more or less developed submarginal sinuous line, sometimes diffused over the whole apical area; a dark marginal line. Underside with the veins and all the markings prominently dark.

*Hab.* Europe; Japan; Afghanistán; N.W. Himalayas; Khásis. *Exp.* 30 millim.

5173. **Phlyctænodes brevivittalis**, n. sp.

♂. Paleyellowish brown; palpi fulvous, white below; abdomen with fuscous dorsal bands on 2nd and 3rd segments, the next four ringed with black. Fore wing with indistinct dark antemedial line, curved from costa to median nervure, then outwardly oblique and developed into a very prominent inwardly-oblique black band from middle of interno-median interspace to inner margin; both wings with oblique minutely dentate indistinct postmedial line ending at vein 2 of hind wing; the marginal area suffused with fuscous; the cilia bright yellow.

*Hab.* Nágas (*Doherty*). *Exp.* 30 millim. Type in coll. Elwes.

5174. **Phlyctænodes crocalis**, *Hmpsn. Ill. Het.* viii, p. 131, pl. 154, fig. 7.

♂. Bright orange-yellow; head and femora fulvous, the fore tibiæ banded fulvous and white; palpi white below. Fore wing with the basal half of costa fulvous; an erect slightly sinuous antemedial fulvous line; a speck in cell and striga at end of it; an obscure postmedial dentate line highly excurved from veins 5 to 2, then bent inwards. Hind wing with dentate postmedial line excurved from vein 6 to 2, where it is bent inwards.

*Hab.* Nilgiris; Ceylon. *Exp.* 30 millim.

5175. **Phlyctænodes perbonalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 272, pl. 8, fig. 17.

♀. Rufous brown; head and collar fuscous. Fore wing with the costal area fuscous, with a series of dark specks on it; an indistinct antemedial sinuous line; a grey and fuscous spot in cell and lunule at end of it; an oblique postmedial line slightly excurved between veins 5 and 2; a waved submarginal line; a series of indistinct dark marks just inside the margin, one above the outer angle being largest. Hind wing with oblique nearly straight ante- and postmedial and curved submarginal lines almost meeting near anal angle; fuscous patches at apex and anal angle, and a series of obscure dark marks just inside the margin.

*Hab.* Rangoon. *Exp.* 26 millim.

## Genus DIASEMIA.

Diasemia, *Guen. Delt. & Pyr.* p. 233 (1854).

Type, *D. litterata*, Scop.

*Range.* Universally distributed.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated with scales; frons rounded; antennæ annulated and ciliated, in male minutely serrate; tibiæ with the spurs long and even. Fore wing long and narrow; veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9, to which 10 is approximated. Hind wing with the outer margin excised below apex; the cell short; veins 3, 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing strongly with 8.

5176. **Diasemia litterata**, *Scop. Ent. Carn.* p. 229.
Phalæna argentalis, *Fabr. Ent. Syst.* iii, 2, p. 240.
Isopteryx impulsalis, *Wlk. Cat.* xvii, p. 404; *C. & S.* no. 4368.

Brown and fulvous black; palpi white below at base; abdomen ringed with white. Fore wing with white antemedial band from median nervure to inner margin; a spot in end of cell conjoined to a triangular patch with dark lines on it below the cell; a postmedial white line from costa to vein 2, more or less angled inwards at vein 5 and with a spot inside it above vein 5; a series of small dentate dark marks on the margin; the cilia intersected with

white. Hind wing with a white spot in cell and another beyond the discocellulars, with a band from it to inner margin; a postmedial line from costa to vein 2, angled inwards at vein 5; cilia white and fuscous, with a dark line through them.

*Impulsalis* is a small ochreous female with a black patch on inner margin of fore wing between the antemedial and medial white markings.

*Hab.* Europe; Japan; Sikhim; Ceylon. *Exp.* 14–20 millim.

5177. **Diasemia ramburialis,** *Dup. Lép. France*, viii, p. 343, pl. 233, fig. 6; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 5; *C. & S.* no. 4369.
Isopteryx melaleucalis, *Wlk. Cat.* xvii, p. 402.
Lineodes leodocusalis, *Wlk. Cat.* xix, p. 947.
Diasemia reconditalis, *Wlk. Cat.* xxxiv, p. 1325.
Diasemia leucophæalis, *Wlk. Cat.* xxxiv, p. 1326.

Black irrorated with ochreous spots; abdomen with the base pale. Fore wing with small white spot in end of cell, and two spots below the angle; an oblique postmedial line excurved between veins 5 and 2. Hind wing with broad subbasal and medial white bands; a postmedial line oblique from costa to vein 5, then bent outwards to vein 2, where it terminates; cilia of both wings chequered black and white.

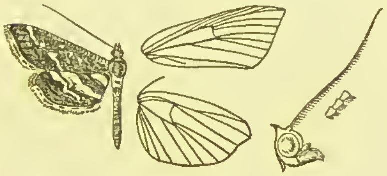

Fig. 222.
*Diasemia ramburialis*, ♂. $\frac{3}{2}$.

*Hab.* Universally distributed. *Exp.* 16–18 millim.

5178. **Diasemia accalis,** *Wlk. Cat.* xix, p. 1015.
Diasemia grammalis, *Meyr. Trans. Ent. Soc.* 1894, p. 9 (*nec Doubl.*).

Reddish brown; abdomen fuscous with pale rings. Fore wing with blackish antemedial mark on inner area, followed by a pale band, then a black band followed by a pale band with dark line on it and blackish patch beyond it above inner margin; obscure grey orbicular and reniform stigmata; a postmedial pale line straight from costa to vein 5, then slightly bent outwards. Hind wing fuscous black, with ochreous spot in end of cell with band from it to costa; a pale line from lower angle of cell to near anal angle; a postmedial line angled inwards on vein 5 and terminating at vein 2.

*Hab.* Shanghai; Dharmsála; Burma. *Exp.* 18 millim.

## Genus **LEPIDONEURA**, nov.

Type, *L. longipalpis*, Swinh.
*Range.* Khásis.

Palpi porrect, rostriform, and about twice the length of head, the 3rd joint long and hidden by hair; maxillary palpi dilated with

scales; frons flat and oblique; antennæ nearly as long as fore wing and almost simple; legs long and slender; tibiæ slightly fringed with hair, the outer spurs about half the length of inner; thorax of male with a large downwardly directed tuft of flattened hair from near origin of fore wing below; abdomen long and slender. Fore wing with the costa highly arched towards apex, which is somewhat acute; vein 3 from angle of cell; 4, 5 somewhat approximated for a short distance; 7 curved and approximated to 8, 9, to which 10 also is approximated. Hind wing with the cell about half the length of wing; vein 3 from angle; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

5179. **Lepidoneura longipalpis**, *Swinh. A. M. N. H.* (6) xiv, p. 208.

♂. Head olive-brown, the vertex white; frons with lateral white lines; palpi white below; thorax and abdomen streaked white and olive-brown. Fore wing white and thinly scaled; the veins thickly scaled with ochreous and olive-brown; the costa ochreous; an oblique olive-brown streak across end of cell; short black streaks in interspaces of outer area, increasing in length to a long streak in interno-median interspace. Hind wing semihyaline; the veins of outer area thickly scaled with ochreous; a dark marginal line except towards anal angle.

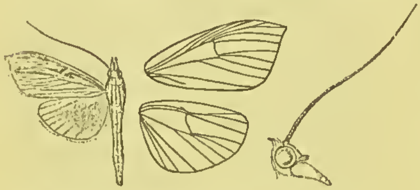

Fig. 223.—*Lepidoneura longipalpis*, ♂. $\frac{1}{1}$.

*Hab.* Khásis. *Exp.* 16 millim.

## Genus ANTIGASTRA.

Antigastra, *Led. Wien. ent. Mon.* 1863, p. 419.

Type, *A. catalaunalis*, Dup.

*Range.* Europe; E. & W. Africa; India, Ceylon, and Burma.

Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated with scales; frons flat and oblique; antennæ nearly as long as the fore wing and minutely ciliated; legs long; fore femora and tibiæ of male fringed with long hair; the outer spurs half the length of inner. Fore wing with the costa arched towards apex, which is acute and produced; veins 3, 4, 5 from angle of cell; 7 well separated from 8, 9. Hind wing with the cell half the length of wing; vein 3 from angle; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

5180. **Antigastra catalaunalis**, *Dup. Lép. France*, viii, p. 330, pl. 232, fig. 8; *C. & S.* no. 4131.

Botys venosalis, *Wlk. Cat.* xxxiv, p. 1401.

Ochreous, the head and thorax suffused with fuscous; frons with

lateral white lines. Fore wing with the veins orange-red; traces of a spot in cell and discocellular spot, of a curved antemedial line and postmedial line excurved from costa to vein 3, then bent inwards to below angle of cell; the marginal area orange-red; the cilia black at base, pure white at tips. Hind wing reddish towards outer margin.

Fig. 224.
*Antigastra catalaunalis*, ♂. 1/1.

*Hab.* Europe; Syria; Aden; E. & W. Africa, throughout India, Ceylon, and Burma. *Exp.* 20 millim.

## Genus AGASTYA.

Agastya, *Moore, P. Z. S.* 1881, p. 378.

Type, *A. hyblæoides*, Moore.

*Range.* Sikhim.

Palpi rostriform, projecting about the length of head and downcurved at extremity; maxillary palpi with a sharp tuft of hair projecting forward from extremity; frons rounded; antennæ ciliated; tibiæ with the outer spurs about two-thirds length of inner; hind tibiæ fringed with spinous hair on outer side. Fore wing broad and quadrate; the costa very much lobed at base; veins 3, 4, 5 from angle of cell; 7 straight and well separated from 8, 9, to which 10 is also approximated. Hind wing broad; the cell short; vein 2 from near angle; 3, 4, 5 approximated for some distance; 6, 7 from upper angle, 7 anastomosing with 8.

5181. **Agastya hyblæoides**, *Moore, P. Z. S.* 1881, p. 379; *C. & S.* no. 4524.

Agastya flavomaculata, *Moore, P. Z. S.* 1881, p. 379; *C. & S.* no. 4523.

♂. Head, thorax, and abdomen dark red-brown. Fore wing with the margins broadly dark red-brown; the disk golden brown; a dark discocellular patch conjoined to the costal dark area; a conical yellow spot on middle of inner margin, usually with a small spot above it. Hind wing golden brown; the apical area black-brown; a yellow submarginal spot between veins 3 and 5; the cilia yellow from below apex to middle. Underside yellow; fore wing with the costal area, a discocellular band, and the outer area down to vein 2 black-brown; hind wing with the apical area blackish, emitting a postmedial line ending on vein 1 *b* and a marginal lunulate band ending on vein 2.

Fig. 225.—*Agastya hyblæoides*, ♂. 1/1.

*Hab.* Sikhim. *Exp.* 32 millim.

## Genus **PROTRIGONIA**, nov.

Type, *P. zizanialis*, Swinh.
*Range.* Bombay; Ceylon.
Palpi porrect, projecting about the length of head, clothed with hair and downcurved at extremity, 3rd joiut hidden; maxillary palpi with a pointed tuft at extremity; frons rounded; antennæ of male somewhat thickened and flattened; tibiæ with the spurs nearly equal. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9. Hind wing with the cell about half the length of wing; vein 3 from before angle; 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8.

5182. **Protrigonia zizanialis**, *Swinh. P. Z. S.* 1885, p. 865, pl. 57, fig. 12; *C. & S.* no. 4472.

Head, thorax, and abdomen pale brown; palpi blackish, white below; abdomen with dark bands. Fore wing grey thickly mottled with brown; a black streak at base of costa; an inwardly oblique black antemedial line; an elongate discocellular ring-spot; a dark submarginal line excurved from costa to vein 3; the margin fuscous; a fine marginal black line. Hind wing pale, suffused with fuscous on outer area; a curved postmedial line.

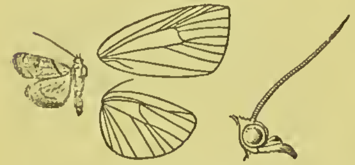
Fig. 226.
*Protrigonia zizanialis*, ♂. $\frac{1}{1}$.

*Hab.* Bombay; Ceylon. *Exp.* 16 millim.

## Genus **NOORDA**.

Noorda, *Wlk. Cat.* xix, p. 978 (1859).

Type, *N. blitealis*, Wlk.
*Range.* W. Africa; Aden; India; Ceylon; Burma; Andamans.
Palpi porrect, the 3rd joint long and rostriform; maxillary palpi clothed with hair produced to a point in front; frons rounded; tibiæ with the outer spurs about half the length of the inner. Fore wing narrow, the apex rectangular; the outer margin erect; vein 3 from before angle of cell; 4, 5 from angle. Hind wing with veins 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

Sect. I. Antennæ of male almost simple.

5183. **Noorda blitealis**, *Wlk. Cat.* xix, p. 979; *C. & S.* no. 4227.
Scopula subjectalis, *Wlk. Cat.* xxxiv, p. 1472.

Dark fuscous; abdomen with lateral metallic-blue and black patches on segments 3 to 8. Fore wing with white patch on

base of inner area; a curved black antemedial line; two leaden grey discocellular spots on a pale discal patch; a black postmedial line outwardly oblique from costa to vein 4, then bent inwards and dentate towards inner margin; a curved submarginal line with some blue-black scales on it; a black line at the base of cilia, which are grey at tips. Hind wing hyaline, with broad black marginal band narrowing to anal angle; cilia with the tips pure white. Underside white; fore wing with broad marginal black band.

Fig. 227.—*Noorda blitealis*, ♂. 1/1.

*Hab.* Aden and throughout the plains of India and Ceylon. *Exp.* 24 millim.

SECT. II. Antennæ of male with long cilia.

5184. **Noorda fessalis**, *Swinh. P. Z. S.* 1886, p. 459, pl. 41, fig. 13; *C. & S.* no. 4183.

Autocharis amethystina, *Swinh. A. M. N. H.* (6) xiv, p. 149.

♂. Very pale lemon-colour, almost white; palpi and shoulders fulvous; fore legs fulvous; the tarsi white; mid tibiæ with fulvous stripe above; anal tuft fulvous. Fore wing with the costa fulvous; two black specks in the cell below costa and one at each angle of cell, any of which may be absent; the outer area pink, pinkish brown, or blackish, bounded inwardly by a slightly sinuous black line, dentate on vein 3. Hind wing with marginal pink band from apex to vein 2, narrowing and with fuscous suffusion inside it towards apex; both wings with the cilia fuscous or pale fulvous, white towards anal angle of hind wing.

♀ often slightly ochreous in tone; fore wing with the specks in cell obsolete; the black line inside the marginal band straight.

*Hab.* W. Africa; Aden; Karáchi; Mhow; Canara; Bhután; Khásis; Nágas; Margharita, Assam; Manipur; Shan States; Andamans. *Exp.* 16–18 millim.

## Genus DAUSARA.

Dausara, *Wlk. Cat.* xvii, p. 507 (1859).

Type, *D. talliusalis*, Wlk.

*Range.* N.E. India; Burma; Andamans; Borneo.

Palpi porrect, rather long, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi with a long sharp tuft from extremity; frons flattened and oblique; antennæ of male much thickened and flattened; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the inner margin lobed at middle; veins 3, 4, 5 well separated at origiu; 7 curved and closely approximated for one-third length to 8, 9, to which 10 also

is approximated; male with the median nervure bent upwards, on underside a very large tuft of large scales below its basal half and a smaller tuft in middle of cell. Hind wing with the cell short; veins 3, 4, 5 well separated at origin; 6, 7 from upper angle, 7 anastomosing slightly with 8.

5185. **Dausara talliusalis**, *Wlk. Cat.* xvii, p. 507.
Glyphodes marginalis, *Moore, P. Z. S.* 1877, p. 618, pl. 60, fig. 15; *C. & S.* no. 4187.

♂. Deep purplish fuscous with copper reflections; head with some white on frons and vertex; the patagia and lateral stripes on collar white; abdomen with lateral white marks at base. Fore wing with pearly white wedge-shaped mark on base of inner area; a broad medial pearly hyaline band edged by dark lines, the band forking towards costa, which the inner arm does not reach.

Fig. 228.—*Dausara talliusalis*, ♂. ½.

Hind wing hyaline, the inner area tinged with fuscous; a fuscous fascia from lower angle of cell to near outer margin below vein 2, where it is joined by a sinuous dark postmedial line, the area beyond which is purplish fuscous.

The form *marginalis*, from the Andamans, has the antemedial band of fore wing narrow, slightly curved, and even throughout.

*Hab.* Nágas; Tenasserim; Andamans; Borneo. *Exp.* 28 millim.

## Genus HEMISCOPIS.

Hemiscopis, *Warr. A. M. N. H.* (6) vi, p. 475 (1890).
Micromania, *Swinh. A. M. N. H.* (6) xiv, p. 141 (1894).

Type, *H. suffusalis*, Wlk.

*Range.* India, Ceylon, and Burma; Sumatra; Borneo.

Palpi porrect, rather long and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi with a long pointed tuft in front; frons rounded; antennæ almost simple and minutely annulated; tibiæ with the outer spurs about half the length of the inner. Fore wing with the apex somewhat acute; the outer margin rounded; veins 3 and 5 from close to angle of cell; 7 straight and well separated from 8, 9. Hind wing with veins 4 and 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing shortly with 8.

5186. **Hemiscopis suffusalis**, *Wlk. Cat.* xxxiv, p. 1471; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 18; *C. & S.* no. 4159.
Botys snellemanni, *Snell. Midd.-Sum.* iv, *Lep.* p. 61.

Bright purple-fuscous; head rufous; palpi black; frons with

lateral white lines; tarsi white; abdomen fulvous towards extremity. Fore wing with outwardly oblique antemedial rufous line; a black postmedial patch on costa, with a large dark rufous roughly-scaled patch below it beyond the cell, traversed by the sinuous dark postmedial line which is bent inwards to the costa. Hind wing with oblique black line from median nervure, joined by a streak in interno-median interspace; an oblique postmedial line bent outwards to outer margin above anal angle; both wings with black marginal line.

Fig. 229.
*Hemiscopis suffusalis*, ♂. ‡.

*Hab.* Nilgiris; Ceylon; Tenasserim; Sumatra; Borneo. *Exp.* 22 millim.

5187. **Hemiscopis expansa**, *Warr. A. M. N. H.* (6) ix, p. 396.

Differs from *suffusalis* in being much larger and paler; no rufous on head and abdomeu. Fore wing with the postmedial line more excurved beyond the cell, the rufous suffusion confined to its inner side and extending to inner margin. Hind wing with rufous suffusion inside the medial part of postmedial line.

*Hab.* Simla; Dharmsála. *Exp.*, ♂ 26, ♀ 32 millim.

5188. **Hemiscopis stigmatilis**, *Swinh. A. M. N. H.* (6) xiv, p. 141.

Fuscous black with a slight purplish tinge. Fore wing with the basal and outer areas darkest, the medial area paler; curved subbasal and antemedial black lines; a postmedial line, sinuous from costa to vein 3, then retracted to upper angle of cell round the discocellular black lunule and sinuous to inner margin; a sinuous submarginal and a marginal series of pale specks. Hind wing with obscure antemedial black line; sinuous postmedial line; the outer area darker, with pale diffused submarginal line; a fine pale marginal line. Underside greyer; fore wing with annulus round the discocellular spot; both wings with sinuous postmedial line, with diffused black band beyond it.

*Hab.* Khásis. *Exp.*, ♂ 26, ♀ 30 millim.

## Genus MECYNA.

Mecyna, *Guen. Delt. & Pyr.* p. 406 (1854).

Type, *M. gilvata*, Fabr.

*Range.* Universally distributed.

Palpi porrect, long and rostriform, the 3rd joint partially concealed by hair; maxillary palpi dilated with scales at extremity;

frons flat; antennæ minutely ciliated; mid tibiæ dilated with a groove containing a tuft of hair; hind tibiæ with the outer spurs about half the length of the inner. Fore wing narrow; the apex arched; veins 3 and 5 from close to angle of cell; 10 closely approximated to 8, 9. Hind wing with the cell short; veins 4, 5 closely approximated for a short distance; 6, 7 stalked, 7 anastomosing strongly with 8.

5189. **Mecyna gilvata**, *Fabr. Ent. Syst.* iii, 2, p. 208.
Pyralis polygonalis, *Hübn. Samml. eur. Schmett., Pyr.* figs. 204, 205.
Pyralis diversalis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 102.
Mecyna aversalis, *Guen. Delt. & Pyr.* p. 409, pl. 4, fig. 12.
Mecyna teriadalis, *Guen. Delt. & Pyr.* p. 410.
Mecyna deprivalis, *Wlk. Cat.* xix, p. 806; *Moore, Lep. Ceyl.* iii, pl. 179, figs. 1, 1 *a* (larva); *C. & S.* no. 4141.
Mecyna rusticalis, *C. & S.* no. 4142 (*nec Hübn.*).

Fig. 230.—*Mecyna gilvata*, ♂. 1/1.

Head, thorax, and fore wing pale pinkish, dark vinous, or dark fuscous suffused with grey, and with grey discal patch; palpi white below; abdomen orange. Fore wing with the costa darker; an indistinct obliquely curved antemedial line; a spot in cell and discocellular lunule; a minutely waved curved postmedial line, often reduced to a series of specks; the marginal area rather darker. Hind wing orange, with marginal dark band from costa to vein 1, but often obsolescent below vein 3. Underside orange, the apical area of fore wing and costal and apical areas of hind wing suffused with pink.

*Larva* rather stout, green above, olivaceous below; dorsal, subdorsal, lateral, and two sublateral series of black spots, the subdorsal dotted with white, the sublateral with oblique yellow streaks between them; head and a band on legs black. *Pupa* red.

*Hab.* S. and E. Europe; Madeira; Syria; Abyssinia; Aden; Punjab; Karáchi; Nilgiris; Ceylon. *Exp.* 28–34 millim.

## Genus BŒOTARCHA.

Bœotarcha, *Meyr. Trans. Ent. Soc.* 1884, p. 305.

Type, *B. tænialis*, Snell., from N. Australia.

*Range.* N.E. India; Burma; Andamans; N. Australia.

Palpi porrect, long, rostriform, and depressed at extremity; maxillary palpi large and dilated with scales; frons with a conical prominence; antennæ thickened and flattened; tibiæ with the outer spurs half the length of the inner. Fore wing long and

narrow; vein 3 from before angle of cell; 4, 5 well separated at origin. Hind wing with veins 4, 5 somewhat approximated for a short distance; 6, 7 from upper angle, 7 anastomosing slightly with 8.

5190. **Bœotarcha martinalis**, *Wlk. Cat.* xviii, p. 791; *C. & S.* no. 4154.

Botys crassicornis, *Wlk. Cat.* xxxiv, p. 1455.

Head, thorax, and fore wing chestnut, more or less suffused with purplish; palpi white below at base; fore legs banded rufous and white; abdomen whitish suffused with fuscous. Fore wing with bright yellow rufous-edged band, in the form *crassicornis* broad with its inner edge sinuous, its outer edge indented at veins 3 and 5 and narrowing slightly to inner margin, in *martinalis* only represented by two conjoined spots above inner margin; an indistinct paler ovate marginal area with fuscous inner edge; a marginal series of dark specks. Hind wing whitish, with the inner and outer areas suffused with fuscous.

Fig. 231.—*Bœotarcha martinalis*, ♂. 1/1.

*Hab.* Moulmein; Rangoon. *Exp.*, ♂ 22, ♀ 26 millim.

5191. **Bœotarcha hyalinalis**, n. sp.

Head, thorax, and abdomen greyish white; wings semihyaline nacreous. Fore wing with slightly sinuous brown antemedial line; prominent discocellular lunule; a minutely waved postmedial line arising from a dark costal spot and slightly excurved from vein 6 to 2; a marginal fuscous band and the cilia fuscous at base from costa to vein 2; a marginal series of white specks. Hind wing with slight marginal line or series of specks.

*Hab.* Bhután (*Dudgeon*); Andamans. *Exp.* 28 millim. Type in B. M.

## Genus CALAMOCHROUS.

Calamochrous, *Led. Wien. ent. Mon.* 1863, p. 386.
Notaspis, *Warr. A. M. N. H.* (6) ix, p. 297 (1892).

Type, *C. chilonalis*, Led., from Venezuela.

*Range.* S. America; E. Europe; N. Asia; N.E. India; Ternate.

Palpi porrect, long and rostriform, the 3rd joint downcurved; frons oblique; maxillary palpi dilated with scales; antennæ of male minutely ciliated; tibiæ with the spurs fully developed. Fore wing with the apex somewhat produced; veins 3 and 5 from close to angle of cell; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. Maxillary palpi strongly dilated with scales.

5192. **Calamochrous tranquillalis**, *Led. Wien. ent. Mon.* 1863, pp. 371, 466, pl. 9, fig. 16.

Fulvous yellow; thorax and abdomen suffused with dark brown, the latter with lateral white basal patches; a dorsal white patch on 2nd segment. Fore wing with fulvous suffusion on costal area; the medial area dark purplish brown, with a black spot in cell and lunule at end of it, the outer edge of the dark area excurved between veins 6 and 2, with a series of dark spots beyond it in the interspaces; a marginal series of dark specks. Hind wing pale yellow; the underside white.

Fig. 232.
*Calamochrous tranquillalis*, ♂. 1/1.

*Hab.* Sikhim; Khásis; Ternate. *Exp.* 36–40 millim.

5193. **Calamochrous ferruginalis**, n. sp.

♀. Head and thorax fulvous; abdomen ochreous tinged with fuscous. Fore wing yellowish, almost wholly suffused and irrorated with bright ferruginous; a sinuous antemedial dark line angled outwards below median nervure; a dark orbicular spot in cell; a large irregular dark patch on discocellulars extending to the costa and produced to an angle below it; an obliquely curved minutely waved dark postmedial line; a dark marginal line; the cilia pale fuscous, with a dark line through them. Hind wing whitish. Underside whitish; fore wing with the blackish orbicular and discocellular patches very prominent; fuscous suffusion below end of cell; hind wing with discocellular and four postmedial dark specks.

*Hab.* Sikhim (*Möller*). *Exp.* 36 millim. Type in coll. Elwes.

5194. **Calamochrous carnealis**, *Swinh. A. M. N. H.* (6) xvi, p. 302.

Straw-yellow; palpi, head, and thorax suffused with flesh-pink. Fore wing with the costa white; the costal area and veins suffused with flesh-pink; a dark speck in cell and discocellular spot; the margin and base of cilia flesh-pink. Hind wing with slight dark marks on margin at middle. Underside of fore wing with the subcostal and median nervures and cell-spots suffused with fuscous.

*Hab.* Khásis. *Exp.* 26 millim.

5195. **Calamochrous ruficostalis**, n. sp.
Botys quadralis, *Snell. Trans. Ent. Soc.* 1890, p. 572 (*nec Wlk.*).

♂. Head, collar, and patagia bright rufous; thorax and abdomen fuscous. Fore wing fuscous; the costal area bright rufous; a dark

postmedial striga from the costa; the basal inner area whitish; diffused dark spots in cell and on discocellulars. Hind wing pale fuscous, with white medial patch on costa; the underside pure white, with the apical area fuscous and traces of a dark postmedial line.

*Hab.* Sikhim (*Knyvett*). *Exp.* 20 millim. Type in B. M.

SECT. II. Maxillary palpi slightly dilated with scales.

5196. **Calamochrous dichroma**, *Moore, Lep. Atk.* p. 223; *C. & S.* no. 4133.

Calamochrous brevipalpis, *Snell. Trans. Ent. Soc.* 1890, p. 599.

♂. Head, thorax, and abdomen dull ochreous; palpi fulvous, white below. Fore wing ochreous, suffused and irrorated with ferruginous; the costal area tinged with brown; traces of dark specks in cell and on discocellulars; the cilia black at base, white at tips. Hind wing ochreous; the costal and anal areas tinged with fuscous. Underside of fore wing with the cell and subcostals suffused with fuscous.

♀ with the palpi rather longer; the fore wing more ochreous; the spots in cell and on discocellulars more prominent; hind wing whitish.

*Hab.* Sikhim. *Exp.* 36 millim.

## Genus METASIA.

Metasia, *Guen. Delt. & Pyr.* p. 251 (1854).

Type, *M. suppandalis*, Hübn., from Europe.

*Range.* Mediterranean subregion; Turkestan; Punjab; Deccan; Australia.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated with scales; proboscis small; frons with a large rounded prominence; antennæ nearly simple; tibiæ with the spurs equal. Fore wing rather long and narrow; vein 3 from well before angle of cell; 10 well separated from 8, 9. Hind wing with vein 3 from near angle of cell; 5 from above the angle; 6, 7 from upper angle, 7 anastomosing with 8.

5197. **Metasia sabulosalis**, *Warr. A. M. N. H.* (6) xviii, p. 217.

♂. Yellow-brown mixed with white scales; palpi fuscous. Fore wing with fuscous streak below basal half of costa; an antemedial fuscous line; a discocellular speck; a dark postmedial line nearly straight from costa to vein 2, along which it is retracted to lower angle of cell. Hind wing with postmedial line bent outwards between veins 5 and 2; both wings with dark marginal line and a line through the cilia.

♀ more ochreous.

*Hab.* Punjab; Poona. *Exp.*, ♂ 12, ♀ 18 millim.

5198. **Metasia monialis**, *Ersch, Hor. Soc. Ent. Ross.* viii, p. 317; *id. Fedtschenko, Reise Turk.* p. 78, pl. 5, fig. 83.

Grey-brown; abdomen sometimes with some black on dorsum. Fore wing very closely mottled with fine specks; some white near base; two medial greyish-white lines; a series of pale-edged black spots from beyond upper angle of cell to inner margin, incurved at vein 4; a submarginal white line excurved from costa to vein 4 and broadest at costa; a white striga just inside the margin from costa and another below middle. Underside white; both wings with curved brown postmedial line.

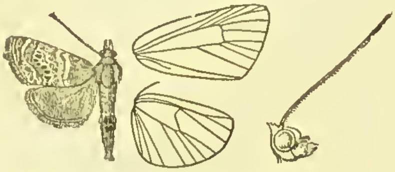

Fig. 233.—*Metasia monialis*, ♂. 1/1.

*Hab.* Turkestan; Campbellpur, Punjab. *Exp.* 26 millim.

## Genus PIONEA.

Pionea, *Guen. Delt. & Pyr.* p. 367 (1854).
Udea, *Guen. Delt. & Pyr.* p. 398.
Pseudebulea, *Butl. Trans. Ent. Soc.* 1881, p. 587.
Lepidoplaga, *Warr. A. M. N. H.* (6) xvi, p. 475 (1895).

Type, *P. forficalis*, Linn.

*Range.* Universally distributed.

Palpi porrect and triangularly scaled, the 3rd joint hidden by hair; maxillary palpi dilated with scales at extremity; frons rounded; antennæ of male minutely ciliated; tibiæ with the outer spurs short. Fore wing with the apex somewhat produced; vein 3 from well before angle of cell; 4, 5 from angle; 10 closely approximated to 8, 9. Hind wing with the cell short; vein 3 from angle of cell; 4, 5 closely approximated for a short distance; 6, 7 stalked, 7 anastomosing strongly with 8.

Sect. I. (*Udea*). Mid tibiæ dilated with a groove containing a tuft of hair.

A. *Antennæ of male somewhat thickened and flattened; hind tibiæ with the outer medial spur minute.*

5199. **Pionea ferrugalis**, *Hübn. Samml. eur. Schmett., Pyr.* figs. 54, 150; *C. & S.* no. 4149.
Scopula martialis, *Guen. Delt. & Pyr.* p. 398.
Scopula hypatialis, *Wlk. Cat.* xix, p. 1014; *C. & S.* no. 4151.
Scopula testacea, *Butl. Ill. Het.* iii, p. 77, pl. 59, fig. 15.

Fulvous yellow, more or less suffused with fuscous; palpi white below at base; frons white at sides. Fore wing with waved fuscous antemedial line; an orbicular spot in cell and larger oval discocellular mark, each being usually filled in with fuscous; a

curved postmedial minutely crenulate line with obscure dentate line beyond it; a prominent marginal series of black specks; the cilia fuscous. Hind wing ochreous, more or less suffused with fuscous; a dark spot at lower angle of cell; a curved minutely crenulate postmedial line most distinct towards costa; the apical area suffused with fuscous; a marginal series of black specks from apex to vein 2.

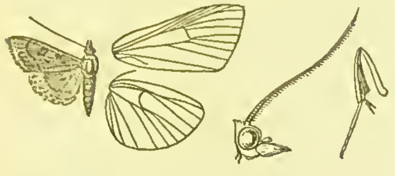

Fig. 234.—*Pionea ferrugalis*, ♂. 1/1.

*Hab.* Europe; Madeira; W. & S. Africa; Syria; Afghanistan; Japan; Sikhim; Nilgiris; Ceylon; Shan States. *Exp.* 22 millim.

5200. **Pionea renalis**, *Moore, Lep. Atk.* p. 224; *C. & S.* no. 4158.

Differs from *ferrugalis* in the head, thorax, and abdomen being rufous suffused with fuscous. Fore wing bright ferruginous, with the markings prominent, especially the orbicular and discocellular patches; a broad fuscous marginal band; both wings with prominent marginal series of black specks.

*Hab.* Sikhim. *Exp.* 22 millim.

5201. **Pionea octonalis**, *Snell. Trans. Ent. Soc.* 1890, p. 581.

Differs from *ferrugalis* in being dark red-brown suffused over grey. Fore wing with the black-edged orbicular and reniform spots filled in with bright rufous; the postmedial line retracted at vein 2 to lower angle of cell, sending a very long tooth outwards along vein 1, and ending on middle of inner margin. Hind wing with the ground-colour white; the apical area fuscous.

*Hab.* Sikhim; Nágas. *Exp.* 24 millim.

B. *Antennæ of male not thickened; hind tibiæ with the outer medial spur half the length of the inner.*

5202. **Pionea mandronalis**, *Wlk. Cat.* xix, p. 1014; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 19; *C. & S.* no. 4153.

Dull reddish brown suffused with fuscous; palpi white below. Fore wing with the costa fuscous; a curved antemedial line angled above inner margin; an obscure speck in cell and discocellular lunule; a postmedial minutely waved line excurved from costa to vein 3, then retracted; the cilia fuscous. Hind wing pale semi-hyaline yellowish brown; faint traces of a curved postmedial line; a marginal fuscous band from costa narrowing to vein 3.

*Hab.* Dharmsála; Ceylon. *Exp.* 20 millim.

5203. **Pionea verbascalis**, *Schiff. Wien. Verz.* p. 121.
Pyralis arcualis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 80.
Botys plumbocilialis, *Snell. Trans. Ent. Soc.* 1890, p. 576.

Fulvous yellow; palpi bright fulvous, white below; abdomen with pale segmental rings. Fore wing with the costal area suffused

with fulvous; a curved dark antemedial line; a speck in cell and discocellular band with a patch of fuscous beyond it; the postmedial line oblique from costa to vein 5, then slightly waved and excurved to vein 2, along which it is retracted nearly to the cell; an obscure minutely waved submarginal line; a dark marginal line; the cilia fuscous. Hind wing with slight dark patch beyond lower angle of cell; the postmedial line bent outwards between veins 5 and 2, along which it is retracted, then oblique to anal angle; an indistinct waved submarginal line; the marginal area suffused with rufous; a dark marginal line; the cilia pale.

The typical form, which occurs on the Nilgiris, has the wings much suffused with fuscous from base to the postmedial line and on marginal area, leaving a quadrate yellow spot in end of cell of fore wing; whilst *plumbocilialis*, from Dharmsála and Sikhim, is a much less suffused form.

*Hab.* Europe; Dharmsála; Sikhim; Nilgiris. *Exp.* 20 millim.

5204. **Pionea albicostalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 271.

Bright straw-yellow; palpi white below; white lines at side of frons and some white on vertex of head; abdomen ringed with white. Fore wing with the costa white; traces of a discocellular lunule and postmedial line excurved between veins 6 and 2, along which it is bent inwards.

*Hab.* Punjab; Nilgiris; Rangoon. *Exp.* 28 millim.

5205. **Pionea aureolalis**, *Led. Wien. ent. Mon.* 1863, p. 473; *C. & S.* no. 4047.

Pyralis ochrealis, *Moore, P. Z. S.* 1877, p. 614; *C. & S.* no. 4069.
Paliga contractalis, *Warr. A. M. N. H.* (6) xviii, p. 113.

Orange-yellow; palpi fulvous, white below; fore tibiæ banded with white and the tarsi white; mid legs white, the tibiæ with a fulvous stripe. Fore wing with curved fulvous antemedial line; a slightly oblique medial line; a slightly sinuous and oblique postmedial line from costa to vein 2; a curved submarginal line sending a tooth inwards on vein 2. Hind wing with sinuous oblique medial and postmedial lines, the former from cell, the latter from vein 6 to near anal angle; a waved oblique submarginal line ending near anal angle.

*Hab.* Dharmsála; Sikhim; Khásis; Ceylon; Andamans. *Exp.*, ♂ 20–36, ♀ 22–34 millim.

5206. **Pionea præpandalis**, *Snell. Trans. Ent. Soc.* 1890, p. 573.

♂. Orange-yellow; palpi fuscous, white below at the base; fore tibiæ with a white band; mid tibiæ with a white stripe. Fore wing with the veins deeper coloured; a minutely waved curved antemedial orange and fuscous line; a discocellular line; a minutely dentate postmedial line bent outwards between veins 5 and 2, then retracted to lower angle of cell; a more prominent curved dentate submarginal line. Hind wing with dentate postmedial line

retracted at vein 2 to lower angle of cell; a dentate submarginal line slightly bent inwards at vein 2.

*Hab.* Sikhim. *Exp.* 30 millim.

5207. **Pionea leucanalis**, *Swinh. Trans. Ent. Soc.* 1890, p. 276, pl. 8, fig. 15.

♀. Head and thorax clothed with pink and orange scales; palpi white below. Fore wing orange, the veins with broad diffused pink fasciæ covering the greater part of the wing; the costal area fulvous, the costa white towards base; an obscure dark dentate oblique postmedial line reaching the inner margin before the middle; cilia with two pink lines through them. Hind wing light yellow, with pink marginal line.

*Hab.* Khásis; Rangoon. *Exp.* 24 millim.

SECT. II. (*Pionea*). Mid tibiæ of male not dilated.

A. *Hind tibiæ of male with the outer medial spur half the length of inner.*

5208. **Pionea forficalis**, *Linn. Syst. Nat.* i. 2, p. 882; *Dup. Lép. Fr.* viii, pl. 219, fig. 6; *C. & S.* no. 4172.

Brownish ochreous; palpi white below; abdomen pale. Fore wing slightly suffused with rufous and with the veins rufous; a brown antemedial line dentate on subcostal and median nervures, then inwardly oblique and slightly waved; two conjoined spots at angles of cell with dark outlines and grey centres; a postmedial line dentate on veins 8 and 7, then inwardly oblique and slightly sinuous; an oblique streak from the apex and minutely waved submarginal line; a waved marginal line and line through the cilia. Hind wing pale, with curved minutely waved postmedial and marginal lines.

*Hab.* Europe; Japan; N.W. Himalayas; Sikhim. *Exp.* 30 millim.

5209. **Pionea nobilis**, *Moore, Lep. Atk.* p. 224, pl. 7, fig. 29; *C. & S.* no. 4173.

♂. Pale ochreous; head and thorax fuscous black and ochreous; palpi black, white below. Fore wing with the basal area and basal half of costa suffused with fuscous; a black spot in cell and discocellular lunule with a small fuscous mark beyond it; a fuscous striga below origin of vein 2; a wedge-shaped black submarginal band enclosing an ochreous spot on costa, its apex on inner margin. Hind wing with discocellular speck; a very indistinct postmedial minutely dentate line bent outwards between veins 5 and 2; some slight fuscous marks on apical part of margin.

*Hab.* Sikhim. *Exp.* 28 millim.

5210. **Pionea fentoni**, *Butl. Trans. Ent. Soc.* 1881, p. 587.
Botys effusalis, *Snell. Trans. Ent. Soc.* 1890, p. 577 (*nec Wlk.*).

Ochreous; palpi fuscous, white below; fore legs banded with fuscous; thorax and abdomen marked with fuscous. Fore wing

with the basal half suffused with fuscous, sometimes with a reddish tinge; a subbasal ochreous line from cell to inner margin; hyaline spots in middle and end of cell; a large ochreous patch beyond cell extending along costa towards base and bounded by the postmedial line, which is straight from costa to vein 2, then retracted to angle of cell and defined by ochreous bands inside and beyond it, the area beyond it more or less fuscous, with ochreous patches on costa and on margin expanding towards outer angle, often becoming the prevailing colour; a marginal series of dark specks. Hind wing ochreous, with discocellular speck; a postmedial line nearly straight from costa to vein 2, then retracted to below angle of cell and waved; an apical fuscous patch and slight mark at anal angle.

*Hab.* Japan; Simla; Sikhim; Nilgiris; Tenasserim. *Exp.* 30 millim.

5211. **Pionea ablactalis**, *Wlk. Cat.* xviii, p. 660; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 6; *C. & S.* no. 4082.
Botys murinalis, *Pagenst. Jahrb. Nassauisch. Ver. für Nat.* 1885, p. 55.

Greenish grey. Fore wing with slightly oblique antemedial dark line; a dark discocellular line; a postmedial line nearly straight from costa to vein 3, then retracted to vein 2 and sinuous to inner margin. Hind wing with discocellular line; a postmedial line excurved between veins 6 and 3; both wings with marginal black line; the cilia pure white.

*Hab.* Sikhim; Poona; Nilgiris; Ceylon; Burma; Borneo; Celebes; Sumbawa. *Exp.* 26–30 millim.

5212. **Pionea brevialis**, *Wlk. Cat.* xviii, p. 759; *Hmpsn. Ill. Het.* ix, pl. 173, fig. 15; *C. & S.* no. 4171.
Botys divisalis, *Led. Wien. ent. Mon.* 1863, p. 468, pl. 10, fig. 4; *C. & S.* no. 4053.
Udea eximialis, *Wlk. Cat.* xxxiv, p. 1471; *C. & S.* no. 4148.

Varies from bright orange-yellow to fulvous yellow; palpi white below at base. Fore wing either uniform, or with a more or less prominent outwardly-oblique sinuous antemedial line and postmedial waved line highly angled at vein 5, sometimes with a large fuscous discal patch in the angle; cilia black at base, pure white at tips. Hind wing uniform and slightly paler.

*Hab.* Dharmsála; Nágas; Nilgiris; Ceylon; Jones Island, N. Australia. *Exp.* 22 millim.

5213. **Pionea castoralis**, *Wlk. Cat.* xviii, p. 693.
Samea purpurascens, *Moore, P. Z. S.* 1877, p. 615; *C. & S.* no. 4248.

♀. Pale fulvous suffused with fuscous; palpi blackish, white above and below; frons whitish; abdomen ringed with white, the anal tuft white tipped with fulvous. Fore wing with erect dark antemedial line, with white dark-edged spot before it in the cell and larger spot beyond it; a postmedial white speck on costa and another before apex with a dark-edged tridentate white spot below

it from which arises a minutely waved line sharply retracted along vein 2. Hind wing with antemedial dark line angled on median nervure; a postmedial line highly angled at vein 2, along which it is sharply retracted; both wings with the cilia black at base, pure white at tips.

*Hab.* Nilgiris; Andamans; Borneo. *Exp.* 20 millim.

B. *Hind tibiæ of male with the outer medial spur minute.*

a. *Fore wing of male with no fans of scales below.*

5214. **Pionea gracilis,** *Warr. P. Z. S.* 1888, p. 334 (*nec* Samea gracilis, *Butl.*); *C. & S.* no. 4245.

♂. Head, thorax, and fore wing whitish, suffused with ochreous and brown; the last with highly waved antemedial line; a large elliptical stigma in cell and very large irregularly reniform discocellular stigma, each with dark edge and pale fuscous centre; some ferruginous scales below the costa and on the veins beyond the cell; a minutely dentate obliquely curved submarginal line; a series of dark specks ou the margiu. Abdomen and hind wing pure white, the latter with dark cell-spot and indistinct curved postmedial line on underside.

*Hab.* Thandiáni, Punjab. *Exp.* 22 millim.

5215. **Pionea nigrostigmalis,** *Warr. A. M. N. H.* (6) xvii. p. 96.

Reddish brown; palpi white below; abdomen ringed with white. Fore wing with indistinct obliquely sinuous antemedial line; prominent black discocellular spot; au indistinct miuutely dentate postmedial line excurved between costa and vein 3; some black specks on costa towards apex aud a marginal series. Hind wing dark fuscous, with iudistinct cell-speck and postmedial line; a marginal series of black specks. Underside with the costa of fore wing and the hind wing whitish, the latter with prominent cell-spot and highly curved postmedial line.

*Hab.* Bhután; Khásis. *Exp.* 18 millim.

b. (Lepidoplaga). *Fore wing of male with the retinaculum consisting of a large fan of leaden-coloured scales, and another large fan beyond the cell on bases of veins* 6 *and* 7, *each showing as a small dark fovea on upperside.*

5216. **Pionea flavofimbriata,** *Moore, Lep. Atk.* p. 208; *C. & S.* no. 4255.
Crocidophora flavicinctalis, *Snell. Trans. Ent. Soc.* 1890, p. 595.
Lepidoplaga longicorpus, *Warr. A. M. N. H.* (6) xviii, p. 108.
Lepidoplaga elongalis, *Warr. A. M. N. H.* (6) xviii, p. 108.

♂. Head, thorax, aud abdomen brown; palpi rufous, white below. Fore wing fuscous; the costal and outer margins ochreous, diffused at apex; faint traces of an antemedial line, a discocellular spot, and postmedial line minutely waved and bent outwards between veins 5 and 2, along which it is slightly retracted; cilia ochreous.

Hind wing fuscous brown, with traces of postmedial line bent outwards between veins 5 and 2, then slightly retracted; the cilia ochreous from apex to vein 2.

*Hab.* Sikhim; Khásis; Calcutta; Ceylon. *Exp.* 24 millim.

5217. **Pionea fuscizonalis**, n. sp.

♂. Ochreous; head fulvous. Fore wing with the costal area tinged with fulvous; an oblique dentate postmedial line terminating at vein 2 of hind wing; a diffused fuscous submarginal band diffused to the margin at apex of fore wing and terminating on the margin at vein 2 of hind wing; a marginal series of dark specks.

*Hab.* Sikhim (*Möller*). *Exp.* 36 millim. Type in coll. Elwes.

c. *Fore wing of male with fan of leaden-coloured scales beyond upper angle of cell below; the fan on median nervure pale, and no foveas on upperside.*

5218. **Pionea phœnicistis**, n. sp.

♂. Yellowish brown; palpi white below at base. Fore wing with slight rufous marks at base and at end of cell; an oblique sinuous antemedial rufous line; an indistinct sinuous rufous postmedial line nearly straight from costa to vein 2, then retracted to lower angle of cell; a very prominent oblique blackish postmedial line, with the area beyond it purplish, leaving a large ovate brown patch on the margin; a marginal series of black specks. Hind wing with oblique postmedial rufous line, met at vein 2 by a diffused line from lower angle of cell; a prominent black line from costa to margin at vein 2; the area beyond it purplish, with marginal series of black striæ and black line at base of cilia. Underside whitish.

*Hab.* Sikhim; Bhután (*Dudgeon*); Khásis; Tenasserim (*Doherty*). *Exp.* 24 millim. Type in coll. Druce.

d. *Fore wing of male with the retinaculum consisting of a large fan of leaden-coloured scales, no fan beyond upper angle.*

5219. **Pionea flavicilialis**, *Snell. Trans. Ent. Soc.* 1890, p. 596, pl. 20, figs. 5 & 5 *a*.

♂. Glossy rufous; palpi below and pectus pure white; abdomen fuscous. Fore wing with indistinct waved antemedial line; a dark speck in cell; the indistinct dark postmedial line nearly straight from costa to vein 3, then retracted almost to origin of vein 2; the margin and cilia golden yellow. Hind wing with traces of dark line from costa to vein 2, with a paler shade beyond it; the cilia yellow.

*Hab.* Sikhim. *Exp.* 24 millim.

## Genus PYRAUSTA.

Pyrausta, *Schrank, Fauna Boica*, ii, 2, p. 163 (1802).
Syllythria, *Hübn. Verz.* p. 349 (? 1818).
Hæmatia, *Hübn. Verz.* p. 349.
Nascia, *Curt. Brit. Ent.* vi, p. 599 (1840).
Herbula, *Guen. Delt. & Pyr.* p. 175 (1854).
Ebulea, *Guen. Delt. & Pyr.* p. 357.
Gyptitia, *Snell. Tijd. v. Ent.* xxvi, p. 138 (1883).
Eclipsoides, *Meyr. Trans. Ent. Soc.* 1884, p. 343.
Paliga, *Moore, Lep. Ceyl.* iii, p. 350 (1885).
Protocolletis, *Meyr. Trans. Ent. Soc.* 1888, p. 223.
Opsibotys, *Warr. A. M. N. H.* (6) vi, p. 474 (1890).
Sciorista, *Warr. A. M. N. H.* (6) vi, p. 475.
Micractis, *Warr. A. M. N. H.* (6) ix, p. 294 (1892).
Glauconoë, *Warr. A. M. N. H.* (6) ix, p. 296.
Aplographe, *Warr. A. M. N. H.* (6) ix, p. 301.
Crypsiptya, *Meyr. Trans. Ent. Soc.* 1894, p. 463.

Type, *P. cingulata*, Linn., from Europe.

*Range.* Universally distributed.

Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons rounded; antennæ not more than three-fourths length of fore wing and minutely ciliated; tibiæ with the outer spurs short, the outer medial spur of hind tibiæ not more than two-thirds the length of the inner spur. Fore wing with veins 3 and 5 from close to angle of cell; 10 free or rarely anastomosing with 8, 9. Hind wing with veins 4, 5 not approximated towards origin; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. (*Pyrausta*). Hind tibiæ with the outer medial spur one-half to two-thirds the length of the inner spur.

A. *Hind tibiæ fringed on outer side with spinous hair.*

5220. **Pyrausta silhetalis**, *Guen. Delt. & Pyr.* p. 166; *C. & S.* no. 4337.
Botys pangialis, *Feld. Reis. Nov.* pl. 134, fig. 25.
Pyrausta cuprealis, *Moore, A. M. N. H.* (5) i, p. 235; *id. 2nd Yarkand Mission, Lep.* pl. 1, fig. 26; *C. & S.* no. 4335.

Black-brown; head and legs orange; abdomen ringed with orange and with some orange on sides. Fore wing with faint traces of diffused dark ante- and postmedial bands. Hind wing with broad medial orange band not reaching the costa and narrowing to inner margin. Underside of each wing with orange fascia on inner margin meeting a medial band.

*Hab.* Yarkand; N.W. and E. Himalayas; Khásis. *Exp.* 18 millim.

5221. **Pyrausta aurantifascialis**, n. sp.

♀. Black-brown; underside of palpi, thorax, and abdomen and the legs golden yellow; abdomen with fine pale rings. Wings black-brown; fore wing with orange postmedial band from costa to vein 4, rounded at lower end; hind wing with similar band from

below costa to vein 2, tapering to its lower end. Underside with the bands continued indistinctly to inner margin of each wing; fore wing with the outer area suffused with yellow; hind wing with the apex suffused with yellow; a marginal series of orange spots.

*Hab.* Bernardmyo, Burma (*Doherty*). *Exp.* 20 millim. Type in coll. Elwes.

5222. **Pyrausta sikhima**, *Moore, Lep. Atk.* p. 207; *C. & S.* no. 4361.
Porphyritis maculata, *Butl. Ill. Het.* vii, p. 93, pl. 134, fig. 16.

Black-brown; abdomen ringed with orange. Fore wing with some orange hair on basal area; an orange antemedial band from cell to above inner margin; a postmedial orange band composed of a large spot on disk conjoined to a small spot on inner area and speck below costa. Hind wing with medial orange band not reaching the costa and narrowing from cell to inner margin. Underside of fore wing with the basal area orange; a postmedial orange band conjoined to a fascia on inner area; hind wing with subbasal and medial orange bands.

*Hab.* Dharmsála; Sikhim; Nágas; Andamans. *Exp.* 16 millim.

5223. **Pyrausta ustalis**, *Hmpsn. Ill. Het.* viii, p. 138, pl. 155, fig. 7.

Red-brown suffused with fuscous; head and collar blackish; palpi white below. Fore wing with the basal costal area blackish; an obscure antemedial dark line; annuli in cell and on discocellulars. Hind wing with discocellular band; both wings with minutely dentate postmedial line bent outwards between veins 5 and 2, then retracted to below angle of cell; a marginal series of black specks.

*Hab.* Nilgiris. *Exp.* 26 millim.

B. *Mid tibiæ smoothly scaled.*

a. *Fore wing of male without foveas in and beyond end of cell.*

a'. *Thorax of male without large fan of scales at origin of fore wing below.*

5224. **Pyrausta cespitalis**, *Schiff. Wien. Verz.* p. 123; *C. & S.* no. 4363.
Pyralis zonana, *J. C. Schäff. Icon. Ins.* pl. 262, figs. 4, 5.
Tinea vestianella, *Clerck, Icon. Ins.* pl. 11, fig. 11.
Pyralis sordidalis, *Hübn. Samml. eur. Schmett., Pyr.* pl. 7, fig. 40.
Pirausta intermedialis, *Dup. Lép. Fr.* viii, p. 350, pl. 234, figs. 1, 2.
Phalæna despicata, *Scop. Ent. Carn.* no. 579, p. 231.
Herbula picarialis, *Wlk. Cat.* xxxiv, p. 1287.
Botys tendinosalis, *Brem. Lep. Ost-Sib.* p. 99, pl. 8, fig. 10.

Head and thorax rufous irrorated with fuscous; abdomen fuscous ringed with white. Fore wing rufous, irrorated with fuscous and slightly suffused with grey; an irregular grey antemedial line dentate on median nervure; the orbicular and reniform with dark outline and often with a pale patch between them; a postmedial series of dark specks on a pale band excurved from

vein 6 to 4 and followed by irregular patches of dark suffusion; a pale marginal band and series of black specks. Hind wing black, with orange medial patch on costa; orange postmedial and marginal bands varying in width, the former with the outer, the latter with both edges waved; cilia of both wings fuscous. Underside orange, with black spot in cell of fore wing and at end of cell of both wings; an irregularly curved postmedial line and diffused submarginal band; the marginal area tinged with rufous. The fore wing may be entirely suffused with grey, rufous, or fuscous.

*Hab.* Europe; Syria; Siberia; Afghanistan; Punjab; Dharmsála; Bernardmyo, Burma. *Exp.* 18–22 millim.

5225. **Pyrausta canotinctalis**, n. sp.

♂. Head and thorax sparsely clothed with brown hair, abdomen with grey hair, the anal tuft white. Fore wing yellowish grey, with a brown costal fascia; a brown patch on base of inner margin; an antemedial ill-defined brown band conjoined below cell to an oblique sinuous postmedial band; an oblique brown submarginal band expanding into a patch on inner margin; cilia tipped with grey. Hind wing fuscous, with diffused grey postmedial band and marginal grey line; the cilia white. Underside of fore wing fuscous; the marginal area white; hind wing white.

♀ with the ground-colour of fore wing much yellower and brighter.

*Hab.* Dalhousie (*Harford*); Kulu (*Graham Young*). *Exp.*, ♂ 36, ♀ 28 millim. Type in B. M.

5226. **Pyrausta aerealis**, *Hübn. Samml. eur. Schmett., Pyr.* fig. 44.
Pyralis opacalis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 170.
Scopulata suffusalis, *Treitschke, Schmett. Eur.* vii, p. 68.

Differs from *canotinctalis* in being more uniform brown. Fore wing with slight fuscous irroration; a dark discocellular speck and the pale waved postmedial band present. Hind wing brown, with traces of postmedial dark line and a pale patch beyond it at lower angle of cell.

*Hab.* Europe; Kashmir. *Exp.* 32 millim.

5227. **Pyrausta phœnicealis**, *Hübn. Zutr.* i, p. 22, figs. 115, 116.
Rhodaria flegialis, *Wlk. Cat.* xvii, p. 316.
Rhodaria panopealis, *Wlk. Cat.* xvii, p. 318.
Botys cœcilialis, *Wlk. Cat.* xviii, p. 581.
Rhodaria ocellusalis, *Wlk. Cat.* xix, p. 923.
Rhodaria noraxalis, *Wlk. Cat.* xix, p. 926.
Rhodaria catenalis, *Wlk. Cat.* xxxiv, p. 1282.
Rhodaria juncturalis, *Wlk. Cat.* xxxiv, p. 1283; *C. & S.* no. 4354.
Rhodaria concatenalis, *Wlk. Cat.* xxxiv, p. 1284; *C. & S.* no. 4353.
Myriostephes heliamma, *Meyr. Trans. Ent. Soc.* 1885, p. 448.

Orange-yellow. Fore wing more or less suffused with dull crimson; an outwardly-oblique sinuous antemedial line; a sinuous postmedial line highly excurved between veins 6 and 2, with a broad band of crimson suffusion inside it joining the antemedial

line at inner margin; a diffused crimson submarginal band and marginal line. Hind wing with oblique line from costa beyond middle to outer margin above anal angle, the area inside it more or less suffused with fuscous; the apical area more or less suffused with dull crimson or fuscous, narrowing to vein 2.

*Hab.* N. and S. America; W. Indies; Africa; China; Sikhim; Bombay Presidency; Nilgiris; Australia. *Exp.* 20 millim.

5228. **Pyrausta rubritinctalis**, *Warr. A. M. N. H.* (6) xvi, p. 471.
Syllythria metallica, *Warr. A. M. N. H.* (6) xviii, p. 107.

♂. Head, thorax, and abdomen orange suffused with crimson; palpi white at base. Fore wing orange thickly irrorated with purplish crimson; traces of a curved antemedial line; a discocellular spot; a highly waved submarginal line; a crimson marginal band. Hind wing pale yellow.

*Hab.* Khásis. *Exp.* 18 millim.

5229. **Pyrausta sanguinalis**, *Linn. Syst. Nat.* i, 2, p. 882.
Pyralis hæmatalis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 178.
Pyralis auroralis, *Zell. Isis*, 1847, p. 647.
Pyralis virginalis, *Dup. Lép. Fr.* viii, p. 216, pl. 224, fig. 3.

Bright straw-yellow; patagia tinged with crimson. Fore wing with a crimson fascia on costa from base to beyond middle; a medial crimson band wide from costa to median nervure, then narrow and usually leaving a yellow discocellular spot; a broad oblique submarginal crimson band. Hind wing pale yellow, with diffused fuscous submarginal band.

The above is the form *hæmatalis*, of which a specimen was taken at Simla by Major Harford.

The forms *sanguinalis*, *auroralis*, and *virginalis* from Europe have the hind wing dark, the crimson bands broad, and the whole outer area usually crimson; in the last two forms the bands are especially wide, in *virginalis* the yellow on postmedial area is reduced to a line.

*Hab.* Europe; Syria; Simla; Kulu. *Exp.* 20–22 millim.

5230. **Pyrausta cruoralis**, *Warr. A. M. N. H.* (6) xvi, p. 471.

♂. Head, thorax, and abdomen orange suffused with purplish crimson; palpi fulvous, white below; wings purplish crimson. Fore wing with some fuscous suffusion in cell and on outer area; the outer half of costa orange; a postmedial orange band expanding beyond lower angle of cell and on inner side below the cell. Hind wing with postmedial orange band broad from costa to lower angle of cell; mid tibiæ white on outer side.

*Hab.* Khásis. *Exp.* 18 millim.

5231. **Pyrausta machœralis**, *Wlk. Cat.* xix, p. 1013; *C. & S.* no. 4152.
Scopula damastesalis, *Wlk. Cat.* xix, p. 1013; *Hmpsn. Ill. Het.* ix, pl. 173, figs. 1, 8; *Cotes, Indian Museum Notes*, iii, p. 94 (larva); *C. & S.* no. 4147.

Botys egenalis, *Led. Wien. ent. Mon.* vii, pp. 372, 468, pl. 10, fig. 7.
Botys suavalis, *Wlk. Cat.* xxxiv, p. 1448.
Asopia rufipicta, *Butl. P. Z. S.* 1880, p. 682.
Paliga fuscicostalis, *Swinh. A. M. N. H.* (6) xiv, p. 146.
Ebulea fimbriata, *Moore, Lep. Ceyl.* iii, p. 346; *C. & S.* no. 4135.
Paliga rubicundalis, *Warr. A. M. N. H.* (6) xvii, p. 96.

Bright yellow; palpi white below; frons white at sides. Fore wing with fulvous-yellow subcostal fascia; an antemedial line oblique from costa to veiu 1, where it is dentate inwards; a speck in cell aud discocellular lunule; a postmedial crenulate line highly excurved between veins 6 and 2, along which it is retracted, and dentate on vein 1; a more or less prominent crenulate submarginal line. Hind wing with crenulate postmedial line bent outwards between veins 5 and 3, along which it is retracted; both wings with marginal dark line and two lines through the cilia.

The form *suavalis* = *fuscicostalis* has the marginal area of fore wing and of hind wing to vein 2 suffused with fuscous; *rubicundalis* from the Khásis has all the markings pink.

*Larva* pale sap-green, with paired dorsal series of purplish spots; head yellow; a few erect hairs on each segment. Destructive to teak trees.

*Hab.* Formosa; Khásis; Nilgiris; Ceylou; Burma; Java; Australia. *Exp.*, ♂ 22, ♀ 24 millim.

5232. **Pyrausta celatalis**, *Wlk. Cat.* xviii, p. 657; *C. & S.* no. 4132.
Botys subcrocealis, *Snell. Tijd. v. Ent.* xxiii. p. 208.

Bright straw-yellow; palpi orange, white below. Fore wing with a slight fulvous tinge on costal area; an autemedial fulvous line, oblique from costa to vein 1, then erect; a discocellular line; both wings with a postmedial line excurved from costa to vein 3, then retracted. Underside with marginal fuscous band, broadest at apex of each wing.

*Hab.* Formosa; Ceylon; Shau States; Pulo Laut; Borneo; Celebes. *Exp.*, ♂ 22, ♀ 26 millim.

5233. **Pyrausta ferrifusalis**, *Hmpsn. Ill. Het.* ix. p. 164, pl. 172, fig. 13.

Differs from *celatalis* in being fulvous red; both wiugs with indistinct minutely waved submarginal line.

*Hab.* Ceylon; E. Pegu; Tenasserim. *Exp.* 26 millim.

5234. **Pyrausta extinctalis**, *Christ. Bull. Mosc.* lvi. (1) p. 20.

Differs from *ferrifusalis* in the postmedial line being curved at vein 3 of each wing instead of sharply angled, but hardly traceable on hind wing; neither wing with the submarginal line or darker marginal area; cilia grey at tips.

*Hab.* Amur; Shan States. *Exp.* 24 millim.

5235. **Pyrausta hyalodiscalis**, *Warr. A. M. N. H.* (6) xvi, p. 471.

♀. Head orange fulvous; palpi white below; thorax and abdomen dark leaden fuscous, the anal tuft fulvous; wings dark leaden fuscous; the costal area of fore wing and marginal area and cilia of both wings orange. Fore wing with oblique sinuous antemedial black line, triangular hyaline white spot in end of cell; a medial black line excurved beyond cell. Hind wing with indistinct sinuous medial line.

*Hab.* Khásis. *Exp.* 22 millim.

5236. **Pyrausta profusalis**, *Warr. A. M. N. H.* (6) xvii, p. 95.

♂. Rufous; wings thickly irrorated with fuscous scales. Fore wing with indistinct curved antemedial ferruginous line; a speck in cell. Both wings with discocellular lunule; a postmedial line sinuous from costa to vein 2, then retracted to lower angle of cell and angled above vein 1; a marginal series of specks. Underside pale.

*Hab.* Khásis; Ceylon; Tenasserim. *Exp.* 18 millim.

5237. **Pyrausta nigritalis**, n. sp.

♂. Glossy black-brown; palpi orange-yellow; legs ochreous. Both wings with faint traces of dark discocellular patch and of obliquely curved postmedial line.

*Hab.* Bernardmyo, Burma (*Doherty*). *Exp.* 18 millim. Type in coll. Elwes.

5238. **Pyrausta coorumba**, *Hmpsn. Ill. Het.* viii, p. 132, pl. 154, fig. 13.
Ebulea anomalalis, *Warr. A. M. N. H.* (6) xviii, p. 110.

♀. Dark reddish brown; palpi white below; abdomen slightly ringed with white. Fore wing with indistinct dark antemedial line; a dark discocellular spot; a minutely crenulate postmedial line highly excurved between veins 6 and 2. Hind wing with indistinct minutely crenulate postmedial line. Both wings with marginal series of whitish specks. Underside of both wings with evenly curved postmedial series of black specks.

*Larva* greenish white, naked; feeds on a species of Nettle, rolling the leaf; pupa black.

*Hab.* Khásis; Margharita, Assam; Nilgiris. *Exp.* 26 millim.

5239. **Pyrausta tinctalis**, *Hmpsn. Ill. Het.* viii, p. 132, pl. 154, fig. 6.

Brown suffused with purple; palpi white below; abdomen ringed with white. Fore wing with antemedial black line bent outwards below costa; traces of a large dark discocellular spot; a postmedial sinuous line highly excurved between veins 6 and 2, along which it is retracted, then sinuous to inner margin, with some white on its outer edge. Hind wing with black spots at upper and lower angles of cell; a postmedial line highly excurved from vein 6 to 3, then inwardly oblique; the outer area darker. Both wings with marginal series of black specks.

*Hab.* Nilgiri plateau. *Exp.* 26 millim.

5240. **Pyrausta purpurascens**, *Hmpsn. Ill. Het.* ix, p. 162, pl. 172, fig. 14.

♂. Differs from *tinctalis* in the fore wing being darker and much more suffused with purple; an ochreous patch on the inner edge of the postmedial line on inner area; some dentate ochreous marks beyond the postmedial line and patch on inner area. Hind wing ochreous to the postmedial line, which is indistinct and has some dentate marks on its outer edge; no spot at lower angle of cell. Both wings with marginal series of ochreous spots.

*Hab.* Ceylon. *Exp.* 30 millim.

5241. **Pyrausta benenotata**, *Swinh. A. M. N. H.* (6) xiv, p. 142.

Fuscous suffused with purple; palpi and thorax white below; legs white ringed with black; abdomen of male with a white dorsal spot at extremity. Fore wing with waved black antemedial line angled below the cell; a black spot in cell and lunule on discocellulars; a prominent postmedial black line minutely dentate from costa to vein 2, along which it is sharply retracted nearly to the cell, then dentate and thicker to inner margin. Hind wing with black cell-spot; a postmedial line excurved from vein 5 to 2, along which it is sharply retracted, then straight to anal angle. Both wings with prominent white maculate line at base of cilia.

*Hab.* Sikhim; Khásis. *Exp.* 28 millim.

5242. **Pyrausta nigrescens**, *Moore, Lep. Atk.* p. 221; *C. & S.* no. 4099.

♀. Fuscous with a slight purplish tinge; palpi white below. Fore wing with the costa orange-yellow from before middle to apex; an indistinct outwardly oblique curved antemedial line; a discocellular lunule; an indistinct dark postmedial line, bent outwards between veins 6 and 3, then inwards to below end of cell; cilia golden yellow. Hind wing with faint traces of postmedial line; the cilia golden yellow from costa to vein 2.

*Hab.* Sikhim. *Exp.* 30 millim.

5243. **Pyrausta nubilalis**, *Hübn. Samml. eur. Schmett., Pyr.* fig. 94; *C. & S.* no. 4068.

Pyralis silacealis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 116.
Pyralis glabralis, *Haw. Lep. Brit.* p. 380.
Botys zealis, *Guen. Delt. & Pyr.* p. 332; *C. & S.* no. 4106.
Hapalia kasmirica, *Moore, Lep. Atk.* p. 222, pl. 7, fig. 28; *C. & S.* no. 4097.
Hapalia lupulina, *Butl. Ill. Het.* vii, p. 19 (*nec Clerck*).

♂. Head, thorax, and abdomen brown; palpi white below; abdomen slightly ringed with white. Fore wing ochreous, almost entirely suffused with fuscous and dark rufous; a highly sinuous oblique antemedial line with ochreous on its inner edge; a dark spot in cell and lunule on discocellulars, usually with an ochreous patch between them; a dentate postmedial line with dentate ochreous band beyond it; a series of ochreous streaks on the veins

of outer area. Hind wing fuscous, with an obscure minutely dentate postmedial line with broad ochreous band beyond it.

♀. Ochreous. Fore wing with hardly a trace of fuscous suffusion; the sinuous antemedial and dentate postmedial and submarginal lines obscure or prominent. Hind wing with fuscous suffusion on basal area and slight suffusion beyond the postmedial band.

*Hab.* Europe; N.W. Himalayas; Sikhim; Khásis; Manipur. *Exp.*, ♂ 30, ♀ 34 millim.

5244. **Pyrausta damoalis**, *Wlk. Cat.* xviii, p. 656; *C. & S.* no. 4052.
Hapalia dorsivittata, *Moore, Lep. Atk.* p. 223, pl. 7, fig. 18; *C. & S.* no. 4089.

♂. Ochreous slightly suffused with fuscous; palpi white below. Fore wing with slight fuscous streaks on costa and subcostal nervure; an oblique dark sinuous antemedial line; a dark spot in cell and lunule on discocellulars; a minutely dentate postmedial line excurved from vein 6 to 4; an indistinct highly dentate submarginal line. Hind wing paler, with indistinct dark postmedial line not reaching costa or inner margin; traces of dark submarginal dentate marks. Both wings with fine dark marginal line.

There may be dark suffusion on marginal area of both wings and nside the postmedial line of hind wing.

♀. Ochreous, without trace of fulvous suffusion.

*Hab.* Japan; China; Dharmsála; Sikhim; Rangoon. *Exp.* 24–26 millim.

5245. **Pyrausta occultilinea**, *Wlk. Cat.* xxvii, p. 168.

Ochreous; palpi fulvous, white below. Fore wing with the costal area fuscous; the veins fuscous; dentate ante- and postmedial fuscous lines nearly meeting on inner margin, the former outwardly, the latter inwardly dentate; a discocellular lunule; a marginal series of specks. Hind wing whitish.

*Hab.* Sikhim; Borneo. *Exp.* 38 millim.

5246. **Pyrausta diffusalis**, *Guen. Delt. & Pyr.* p. 340.
Botys carnealis, *Dup. Lép. Fr.* viii, p. 322, pl. 232, fig. 4 (*nec Treitschke*); *C. & S.* no. 4050.
Botys tenuialis, *Mann. Wien. ent. Mon.* 1862, p. 387, pl. 3, fig. 5.

Pale fulvous, more or less suffused with fuscous; palpi white below; a white line along palpi, side of frons, and base of shaft of antennæ. Fore wing with slightly curved antemedial fuscous line with pale inner edge; an indistinct speck in cell and lunule at end of it; a sinuous dark postmedial line with pale outer edge, very much excurved from vein 6 to 2, where it is sharply retracted to the median nervure. Hind wing with dark medial line with pale outer edge. Both wings with double fine marginal line.

*Hab.* S. Europe; Syria; Punjab. *Exp.* 20–26 millim.

5247. **Pyrausta vitellinalis**, *Koll. Hügel's Kaschmir*, iv, p. 492; *C. & S.* no. 4081.
Botys extinctalis, *Led. Wien. ent. Mon.* 1863, p. 467, pl. 9, fig. 18.

♀. Fuscous with a fulvous tinge. Fore wing with indistinct oblique antemedial line; a black spot in cell and lunule at end of it; a postmedial line excurved from costa to vein 2, along which it is retracted almost to the cell, then again excurved; traces of a curved submarginal line. Hind wing with indistinct postmedial line nearly straight from costa to vein 2, where it is sharply retracted.

*Hab.* Kashmir; Sikhim; Rangoon. *Exp.* 30 millim.

5248. **Pyrausta eriopisalis**, *Wlk. Cat.* xix, p. 1006.
Glauconoë atrigenalis, *Warr. A. M. N. H.* (6) xvii, p. 95.

♂. Fuscous grey; palpi black above, white below. Fore wing with the base of costa fuscous; an obliquely sinuous antemedial fuscous line; a black speck in cell. Both wings with a black discocellular lunule and postmedial minutely dentate fuscous line bent outwards between veins 5 and 2, then retracted to below angle of cell.

*Hab.* Khásis; Borneo. *Exp.* 34 millim.

5249. **Pyrausta robusta**, *Moore, Lep. Atk.* p. 222, pl. 7, fig. 27; *C. & S.* no. 4102.

♀. Head and thorax dark brown, with a few ochreous scales; abdomen brown ringed with ochreous, the base ochreous. Fore wing ochreous, the base brown, running out to an angle on inner margin; an antemedial brown line sending a spur outwards below cell; a brown spot in cell and quadrate discocellular spot with slight brown marks beyond it; a highly crenulate postmedial line retracted at vein 2 to below angle of cell; the area beyond it dark brown, with diffused ochreous patches at costa and beyond the retracted portion. Hind wing ochreous, with discocellular dark band; the postmedial band broad from costa to vein 5, then bent outwards and very highly crenulate to vein 2, with some dark streaks in the sinus, then retracted to near lower angle of cell and broad again; a diffused marginal dark band, broadest at apex, narrowing between veins 5 and 2 and again at anal angle.

*Hab.* Sikhim. *Exp.* 38 millim.

5250. **Pyrausta griseifusa**, *Swinh. Trans. Ent. Soc.* 1891, p. 153.

♀. Straw-colour suffused with fuscous; palpi fulvous, white below. Fore wing with the costa not suffused; an indistinct oblique dark antemedial line angled on median nervure and joined at inner margin by a dentate postmedial line, which is excurved from vein 6 to 3, then oblique. Hind wing paler, with traces of a minutely dentate curved postmedial line.

*Hab.* N. Canara; Nilgiris. *Exp.* 34 millim.

5251. **Pyrausta indistans**, *Moore, Lep. Atk.* p. 223; *C. & S.* no. 4094.

Straw-colour suffused with brown; palpi fulvous, white below. Fore wing with indistinct antemedial line slightly dentate on vein 1; a dark spot in cell and discocellular line, with quadrate ochreous patch between them; a minutely dentate postmedial line highly excurved from vein 6 to 2, where it is much bent inwards; traces of a waved submarginal line. Hind wing with dark cell-spot; a minutely dentate postmedial line incurved at vein 2 and on an ochreous band which extends from vein 5 to anal angle; a dentate submarginal line.

*Hab.* Dharmsála; Sikhim. *Exp.* 32 millim.

5252. **Pyrausta signatalis**, *Wlk. Cat.* xxxiv, p. 1444; *C. & S.* no. 4103.

Bright straw-yellow; head and collar fulvous; palpi white below. Fore wing with a fuscous streak below basal two-thirds of costa; a subbasal line from below median nervure to inner margin; a sinuous antemedial line; a dark-edged white spot in cell and larger spot on discocellulars. Hind wing with a small dark-edged white discocellular spot. Both wings with a sinuous postmedial line bent outwards between veins 5 and 3, then recurved almost to origin of vein 2; a marginal fuscous grey-suffused band with waved inner edge bent outwards between veins 5 and 3 of each wing.

The Ceylon form is much more fulvous yellow.

*Hab.* N.W. Himalayas; Nilgiris; Ceylon; Java. *Exp.*, ♂ 24, ♀ 28 millim.

5253. **Pyrausta punctimarginalis**, n. sp.

♂. Pale yellow; palpi white below at base. Fore wing with the base of costa slightly tinged with fulvous; an obliquely curved antemedial line; both wings with dark discocellular lunule; the postmedial line bent outwards and minutely dentate between veins 5 and 2, then retracted to below angle of cell; a marginal series of short striæ and a fine line through the cilia.

*Hab.* Sikhim (*Möller*); Celebes. *Exp.* 26 millim. Type in coll. Elwes.

5254. **Pyrausta incoloralis**, *Guen. Delt. & Pyr.* p. 332; *C. & S.* no. 4059.

Botys melonalis, *Wlk. Cat.* xviii, p. 702; *C. & S.* no. 4144.
Spilodes nitetisalis, *Wlk. Cat.* xviii, p. 773.
Botys albidalis, *Wlk. Cat.* xxxiv, p. 1411; *C. & S.* no. 4042.
Botys ruficostalis, *Led. Verh. zool.-bot. Ges. Wien*, 1855, p. 217, pl. 3, fig. 4.

Yellowish white; head and collar bright fulvous; palpi white below. Fore wing with the basal half of costa bright fulvous; an indistinct outwardly oblique antemedial fuscous line; a fulvous speck in cell and lunule on discocellulars; a somewhat maculate

postmedial fuscous line highly excurved from vein 6 to 2, then bent inwards; a marginal fuscous band widest at apex. Hind wing with obscure fuscous spot at lower angle of cell; a postmedial dentate line highly excurved from vein 5 to 2; a more or less prominent marginal band, obsolete in the Syrian and nearly so in the Aden specimens.

*Hab.* Syria; Aden; Congo; S. Africa; throughout India; Java; Celebes; Australia. *Exp.* 30 millim.

5255. **Pyrausta ciniferalis**, *Wlk. Cat.* xxxiv, p. 1417.
Hapalia concolor, *Moore, Lep. Ceyl.* iii, p. 339, pl. 181, fig. 3; *C. & S.* no. 4085.

♂. Uniform grey; head and collar bright fulvous; palpi white below. Underside whitish.

*Hab.* Ceylon; Tenasserim; Borneo. *Exp.* 36 millim.

b'. (Crypsiptya). *Thorax of male with large fan of scales at base of fore wing below.*

5256. **Pyrausta ceadesalis**, *Wlk. Cat.* xviii, p. 639.
Botys deductalis, *Wlk. Cat.* xviii, p. 659; *Hmpsn. Ill. Het.* ix, pl. 172, fig. 16; *C. & S.* no. 4086.
Botys nereidalis, *Led. Wien. ent. Mon.* 1863, pp. 371, 465, pl. 9, fig. 7.
Botys ausonialis, *Snell. Trans. Ent. Soc.* 1890, p. 578.

♂. Uniform grey; head and collar with a slight fulvous tinge; palpi white below. Fore wing with indistinct dark spot in cell and another on discocellulars; traces of a curved postmedial line. Hind wing with more prominent curved postmedial line. Underside whiter.

*Hab.* Africa; Sikhim; Ceylon; Pulo Laut; New Guinea. *Exp.* 34 millim.

b. *Fore wing of male with a glandular lobe on costa at two-thirds from base; a hyaline fovea in end of cell; vein 7 from well below upper angle of cell,* 6 *from below middle of discocellulars, the base of each curved downwards and with elongate foveas above them.*

5257. **Pyrausta foviferalis**, n. sp.

♂. Differs from *incoloralis* in the lines of fore wing being better defined and with a rufous tinge; the postmedial line nearly straight from costa to vein 4, then sharply retracted almost to lower angle of cell and waved to inner margin. Hind wing with the line nearly straight from costa to vein 2.

*Hab.* Thayetmyo, Burma (*Watson*). *Exp.* 26 millim. Type in B. M.

Sect. II. (*Naseia*). Hind tibiæ of male with the outer medial spur minute.

A. *Antennæ of male with no tooth on 3rd joint or excision at base of shaft.*

a. *Coxæ of male without tufts of hair.*

5258. **Pyrausta rubellalis**, *Snell. Trans. Ent. Soc.* 1890, p. 577.
Botys coactalis, *Snell. Trans. Ent. Soc.* 1890, p. 577.

♂. Rufous; palpi below and pectus pale. Fore wing with the eosta orange towards apex; faint traees of an antemedial line, of a diseocellular spot, and of a postmedial line exeurved from eosta to vein 2, aloug which it is retraeted; eilia orange. Hind wing fuscous brown, with traces of exeurved postmedial line retracted along vein 2; the eilia orange from apex to vein 2.

*Hab.* Sikhim; Tenasserim. *Exp.* 24 millim.

5259. **Pyrausta bisignata**, *Butl. Ill. Het.* vii, p. 98, pl. 135, fig. 11.

Bright oehreous. Fore wing slightly suffused with fuseous; a black spot in eell and larger spot on diseoeellulars; traces of a curved postmedial line bent inwards at vein 2. Hind wing fuseous, with the cilia bright ochreous.

*Hab.* Simla; Dharmsála. *Exp.* 24 millim.

5260. **Pyrausta paupellalis**, *Led. Wien. ent. Mon.* 1863, p. 469, pl. 10, fig. 6; *C. & S.* no. 4072.

♂. Head, thorax, and fore wing orange-yellow; abdomen whitish. Fore wing with the eostal area slightly suffused with rufous and fuseous; a dark siuuous outwardly-oblique antemedial line; a diseocellular lunule; a postmedial line highly exeurved from eosta to vein 3, then bent inwards. Hind wing whitish, with traees of a postmedial line bent outwards between veins 5 and 2; both wings with marginal dark line.

*Hab.* 'India'; Ceylon. *Exp.* 16 millim.

5261. **Pyrausta obliquata**, *Moore, Lep. Atk.* p. 224; *C. & S.* no. 4136.
Leucocraspeda nissoralis, *Swinh. A. M. N. H.* (6) xiv, p. 145.

Ochreous; palpi fulvous, white below. Fore wing with the basal half of eostal area fulvous; an antemedial outwardly-oblique rufous liue dentate on vein 1; a black speck in eell aud diseoeellular lunule with a fascia from it to outer margin at vein 2; the outer area between lower augle of eell, vein 5, and outer angle suffused with fulvous; a postmedial rufous line, outwardly oblique from costa to vein 5, then dentate and retraeted along vein 2 to near lower angle of cell. Hind wing with the costal area whitish; a postmedial minutely dentate line retracted along vein 2 and joined by a streak from lower angle of eell; the outer area suffused

with fulvous from costa to vein 2; both wings with marginal dark line and line through the cilia.

*Hab.* Sikhim; Khásis; Nágas; Ceylon; Tenasserim. *Exp.* 24 millim.

5262. **Pyrausta coclesalis**, *Wlk. Cat.* xviii, p. 701.
Botys itemalesalis, *Wlk. Cat.* xix, p. 996; *C. & S.* no. 4061.
Botys strenualis, *Wlk. Cat.* xxxiv, p. 1409; *C. & S.* no. 4075.
Botys interfusalis, *Wlk. Cat.* xxxiv, p. 1443.
Botys lentalis, *Feld. Reis. Nov.* pl. 135, fig. 44; *C. & S.* no. 4063.

Ochreous brown; palpi fulvous, white below. Fore wing with the veins and costal and outer areas darkest; an obliquely waved antemedial line; a dark discocellular speck; a postmedial dark line highly excurved from vein 5 to 2, where it is much bent inwards. Hind wing pale: the outer area dark; a postmedial line highly excurved from vein 5 to 2, then incurved.

Fig. 235.—*Pyrausta coclesalis*, ♂. ½.

*Larva* feeds on bamboo.

*Hab.* China; Formosa; throughout India and Burma; Borneo; Java; Sumbawa. *Exp.*, ♂ 28, ♀ 30 millim.

5263. **Pyrausta acutidentalis**, n. sp.

♀. Ochreous suffused with brown; palpi fulvous, white below. Fore wing with indistinct outwardly oblique antemedial line; traces of a dark spot in cell and line on discocellulars; a dark postmedial line with an ochreous band on its outer edge, straight from costa to vein 3, then highly dentate and bent inwards at vein 2. Hind wing with minutely dentate postmedial line running obliquely from the costa to outer margin at vein 2 and with an ochreous band on its outer edge.

*Hab.* Sikhim (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

5264. **Pyrausta bambusalis**, *Moore, Lep. Atk.* p. 222; *C. & S.* no. 4084.

♂. Ochreous; palpi fulvous; white below. Fore wing with the costa tinged with fulvous; an oblique sinuous antemedial fuscous line; a speck in cell and discocellular lunule; a postmedial line nearly straight from costa to vein 2, along which it is retracted, then bent out again; a submarginal series of dentate fuscous marks diminishing to outer angle. Hind wing with postmedial line outwardly oblique from costa to vein 2, then retracted to cell and obsolescent; a submarginal series of dentate marks diminishing to and terminating at vein 2.

*Hab.* Sikhim; Khásis. *Exp.* 38 millim.

5265. **Pyrausta fraudulentalis**, *Warr. A. M. N. H.* (6) xvi, p. 474.

♂. Rufous with a slight purplish tinge; palpi white below; abdomen ringed with white, the anal tuft tipped with white; wings with a broad yellow postmedial band from below costa of fore wing to outer margin of hind wing above anal angle; cilia fulvous yellow; inner area of hind wing yellowish.

*Hab.* Khásis. *Exp.* 30 millim.

5266. **Pyrausta diniasalis**, *Wlk. Cat.* xviii, p. 649.

Bright yellow; palpi fulvous, white below; male with the anal tuft black. Fore wing with traces of a dark subbasal line; an antemedial line across the cell; a speck at middle of cell, with an oblique line below it from median nervure to inner margin; a fuscous reniform discocellular spot with white lunule on it; a waved fuscous postmedial line, strongly bent outwards between veins 5 and 3; a waved submarginal line, bent inwards below vein 3 and with the area beyond it rufous except at apex. Hind wing with a dark discocellular spot; a waved postmedial line, strongly bent outwards between veins 5 and 3; a waved submarginal line, with the area beyond it tinged with rufous; a series of dark marginal striæ; both wings with a fuscous line at base of cilia, which are pure white at tips.

*Hab.* Shanghai; Dharmsála. *Exp.* 34 millim.

b. *Male with thick tufts of fawn-coloured hair from base of fore coxæ and of white hair from the end of the coxæ; mid legs with large tufts of long black and white spatulate hair from the coxæ, and the tibiæ clothed with rough hair.*

5267. **Pyrausta bambucivora**, *Moore, Lep. Atk.* p. 224; *C. & S.* no. 4129.

Nascia arenalis, *Hmpsn. Ill. Het.* ix, p. 163, pl. 173, fig. 29.

♂. Flesh-colour tinted with yellow; palpi white below; frons white at sides. Fore wing with the veins slightly redder; the basal half of costa white; a faint dark speck at lower angle of cell; the cilia fuscous. Hind wing straw-colour, with the apex tinged with fuscous.

The typical specimen from Jubbulpore has the costal area of fore wing on upper and under sides suffused with fuscous, most prominently from cell to outer margin.

*Larva* green, turning red before pupating; lives in rolled-up leaves of bamboo.

*Hab.* Khásis; Jubbulpore; Ceylon. *Exp.* 32 millim.

5268. **Pyrausta citrinalis**, *Warr. A. M. N. H.* (6) ix, p. 302.

Hapalia lutealis, *Butl. Ill. Het.* vii, p. 19 (*nec Dup.*).

♀. Bright yellow; palpi white below; frons white. Fore wing with the apex very acute; a slightly deeper yellow mark at lower

angle of cell; the cilia fuscous at base, pure white at tips. Hind wing dull straw-colour.

*Hab.* Dharmsála. *Exp.* 30 millim.

B. *Antennæ of male with a tuft of hair on inner side of basal joint, the base of shaft excised, flattened, and contorted.*

5269. **Pyrausta torridalis**, n. sp.

♂. Rufous brown suffused with fuscous, except the outer third of wings. Fore wing with indistinct waved antemedial line; diffused blackish discal patch; a minutely waved postmedial line excurved from costa to vein 2, then retracted to below angle of cell and bent outwards again in interno-median interspace. Hind wing with minutely waved postmedial line, excurved from costa to vein 2, then obsolete: cilia blackish from apex of fore wing to vein 2 of hind wing.

*Hab.* Nágas (*Doherty*). *Exp.* 28 millim. Type in coll. Elwes.

C. (Gyptitia). *Antennæ of male with a small tooth on inner side of 3rd joint; hind wing with the bases of vein* 1 *c and median nervure fringed with long hair on underside.*

5270. **Pyrausta ochracealis**, *Wlk. Cat.* xxxiv, p. 1446.
Gyptitia gonialis, *Snell. Tijd. v. Ent.* xxvi, p. 138, pl. 8, fig. 9 *a*, *b*.
Hapalia denticulosa, *Moore, Lep. Ceyl.* iii, p. 337, pl. 183, fig. 8; *C. & S.* no. 4087.

Bright orange; palpi white below. Fore wing with indistinct oblique antemedial line slightly angled below the cell; a dark speck in the cell and elongate discocellular annulus; a sinuous postmedial line much bent outwards between veins 5 and 2, along which it is recurved to the angle of cell; a diffused fuscous submarginal dentate band bent outwards between veins 5 and 2. Hind wing with reniform discocellular mark; a postmedial line much bent outwards between veins 5 and 3; an apical fuscous patch, from which arises a diffused dentate submarginal line bent outwards between veins 5 and 2; both wings with a series of dark specks just inside the margin; the cilia pale fuscous, with a dark line through them.

*Hab.* Ceylon; Nágas; Burma; Java; Celebes. *Exp.* 28 millim.

## Genus **TEGOSTOMA**.

Tegostoma, *Zell. Isis*, 1847, p. 581.
Emprepes, *Led. Wien. ent. Mon.* 1863, p. 360.
Æschremon, *Led. Wien. ent. Mon.* 1863, p. 362.

Type, *T. comparale*, Hübn.

*Range.* Neotropical, Nearctic, and Palæarctic regions; S. Africa; Afghanistan; N.W. Himalayas; North-western, Western, and Southern India.

Palpi porrect, the 2nd joint slightly fringed with hair below,

the 3rd naked; maxillary palpi minute and filiform; frons with a large flat corneous plate excised in front; antennæ of male ciliated; legs smoothly scaled. Fore wing long and narrow; male with a slight fovea on underside above the base of vein 7, which is bent downwards; vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8.

5271. **Tegostoma comparale**, *Hübn. Samml. eur. Schmett., Pyr.* fig. 126.
Pyralis glaucinalis, *Hübn. Samml. eur. Schmett., Pyr.* fig. 127.
Pyralis tenebrosalis, *Wlk. Cat.* xxxiv, p. 1235; *C. & S.* no. 4467.
Scopula fotalis, *Swinh. P. Z. S.* 1885, p. 875, pl. 57, fig. 9; *C. & S.* no. 4150.

Head, thorax, and abdomen grey suffused with fuscous brown. Fore wing grey suffused with brown and irrorated with fuscous; dark spots at middle and end of cell; a dark medial band from median nervure to inner margin; a dark postmedial spot on costa, with an irregular line highly excurved between veins 7 and 4 arising from it; a marginal series of dark specks. Hind wing pale, with the marginal area suffused with fuscous, or wholly suffused with fuscous; a curved dark postmedial line from costa to vein 2, where it is crossed by a pale patch.

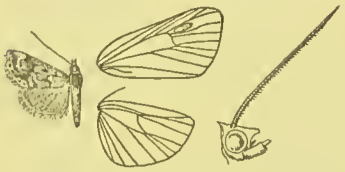

Fig 236.
*Tegostoma comparale*, ♂. 1/1.

The amount of grey, brown, or fuscous suffusion on fore wing varies greatly.

*Hab.* Mediterranean subregion; N.W. Himalayas; Poona; Coimbatore. *Exp.*, ♂ 16–20, ♀ 20–22 millim.

5272. **Tegostoma flavidum**, *Moore, P. Z. S.* 1881, p. 371; *C. & S.* no. 1892.

♂. Head, thorax, and fore wing pale lemon-yellow; abdomen white tinged with fuscous towards extremity. Fore wing with indistinct medial and postmedial red lines, the former obsolete towards costa, the latter bent inwards. Hind wing cupreous fuscous, pale at base.

*Hab.* Allahabad; Punjab. *Exp.* 16 millim.

## Genus NOCTUELIA.

Noctuelia, *Guen. Delt. & Pyr.* p. 113 (1854).
Aporodes, *Guen. Delt. & Pyr.* p. 159.

Type, *N. superba*, Frr., from W. Asia and Persia.

*Range.* Palæarctic region; N. and W. India.

Differs from *Tegostoma* in the palpi typically being fringed with long hair below; the frons with a rounded prominence and no bilobed corneous plate; mid tibiæ fringed with spinous hair.

SECT. I. Palpi with the 2nd joint fringed with long hair below; fore wing of male with a slight fovea on underside above base of vein 7.

5273. **Noctuelia floralis**, *Hübn. Samml. eur. Schmett.*, *Pyr.* fig. 142.
Pyralis stygialis, *Treitschke, Schmett. Eur.* vii, p. 176.
Herbula meleagrisalis, *Wlk. Cat.* xvii, p. 324; *C. & S.* no. 4362.
Eudorea transversalis, *Moore, A. M. N. H.* (5) i, p. 235; *id. 2nd Yarkand Mission, Lep.* p. 14; *C. & S.* no. 4298.

Greyish ochreous suffused with brown; abdomen banded with fuscous. Fore wing with diffused brown basal, subbasal, medial, and submarginal bands; narrow black ante- and postmedial bands overlaid with grey scales, the latter excurved between veins 6 and 4; two black discocellular spots conjoined into an oblique streak and surrounded by grey scales. Hind wing pale dull orange, with a slight dark mark at lower angle of cell; a black-brown postmedial band angled at vein 2 and a black-brown marginal band. Underside clear ochreous; fore wing with a black spot in cell and oblique discocellular band; both wings with black postmedial line.

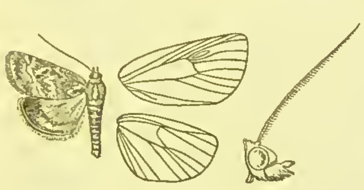

Fig. 237.—*Noctuelia floralis*, ♂. $\frac{3}{2}$.

The European form is usually larger and darker than the Indian race *meleagrisalis*, the hind wing being more or less suffused with brown, in the variety *stygialis* both wings being wholly suffused with brown.

*Hab.* Europe; Syria; Yarkand; Afghanistan; N.W. Himalayas; Punjab; Sind; Bombay. *Exp.* 16–20 millim.

5274. **Noctuelia fractilinealis**, *Ersch., Fedtschenko, Reise Turk., Lep.* p. 77, pl. 5, fig. 82.

Head, thorax, and abdomen white suffused with pale brown. Fore wing pale brown, the scales pencilled with white; a dark antemedial line with white inner edge acutely angled below costa and slightly below cell; a comma-shaped white discocellular mark with black spot at lower angle of cell; a dark postmedial line with white outer edge very much excurved beyond cell; white and dark specks on costa towards apex; a dark marginal line; the base of cilia white. Hind wing brown; the cilia white.

*Hab.* Persia; Turkestan; Kashmir. *Exp.* 18 millim.

SECT. II. Palpi with the 2nd joint smoothly scaled; male with paired tufts of hair from behind the eyes meeting over vertex of head, and no fovea beyond cell of fore wing.

5275. **Noctuelia fuscinervis**, n. sp.

♂. Head and thorax dingy brown variegated with fuscous

black; the 3rd joint of palpi black; the tufts behind the eyes ochreous. Fore wing dingy brown, the veins fuscous black; diffused curved fuscous subbasal, antemedial, and postmedial lines; black spots in cell and on discocellular. Hind wing pale reddish brown.

*Hab.* Murree (*Harford*). *Exp.* 20 millim. Type in B. M.

## Genus **HELIOTHELA**.

Heliothela, *Guen. Delt. & Pyr.* p. 152 (1854).

Type, *H. atralis*, Hübn., from Europe.

*Range.* Palæarctic, Ethiopian, Oriental, and Australian regions.

Palpi porrect, the 2nd joint fringed below with hair towards extremity, the 3rd prominent; maxillary palpi triangularly scaled; antennæ of male somewhat thickened and minutely ciliated; legs short, the tibiæ smoothly scaled, with the spurs moderate; wings short and broad. Fore wing with vein 3 from close to angle of cell; 4, 5 from angle; 7 well separated from 8, 9; 10 free. Hind wing with vein 3 from close to angle of cell; 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing with 8.

5276. **Heliothela ophideresana**, *Wlk. Cat.* xxviii, p. 459; *C. & S.* no. 4526.

Heliothela pusilla, *Butl. Ill. Het.* vii, p. 93, pl. 134, fig. 15.

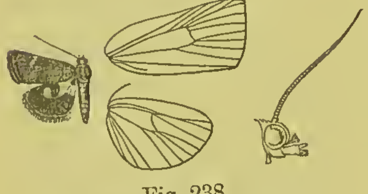

Fig. 238.
*Heliothela ophideresana*, ♂. $\frac{3}{2}$.

Black-brown; abdomen with pale rings. Fore wing irrorated with a few steel-blue scales, which form a small spot at end of cell; an oblique whitish postmedial band from costa to vein 5 and more prominent on underside. Hind wing orange-yellow, with a black medial patch from costa to lower angle of cell; a very broad marginal black band, widest at apex and from vein 2 to anal angle.

*Hab.* Dharmsála; Ceylon; Madagascar; Australia. *Exp.* 17 millim.

## Genus **SIMÆTHISTIS**, nov.

Type, *S. tricolor*, Butl.

*Range.* N.W. Himalayas; Assam.

Palpi porrect, the 2nd joint fringed below with long hair, the 3rd prominent; maxillary palpi minute; frons with a rounded prominence; antennæ annulated. Fore wing with veins 3, 4 from angle of cell; 5 from well above angle; 6, 7, 8, 9, 10, 11 given off at regular intervals. Hind wing with veins 3, 4 from angle of cell; 5 from middle of discocellulars; 6, 7 from upper

angle; 8 approximated to 7 for a short distance beyond end of cell, but not anastomosing with it.

5277. **Simæthistis tricolor**, *Butl. Ill. Het.* vii, p. 95, pl. 134, fig. 18.

Black-brown with a golden tinge and irrorated with yellow scales; palpi white below at base; abdomen with pale rings. Fore wing with a small white spot near base of cell and a large white spot in end of it; a diffused yellow patch beyond the cell; two post-medial white specks on costa. Hind wing with large white spot in end of cell, with a yellow line from it to inner margin; some diffused yellow scales beyond the cell; the cilia white below apex and towards outer angle of each wing. Underside with the basal two-thirds of each wing suffused with golden yellow.

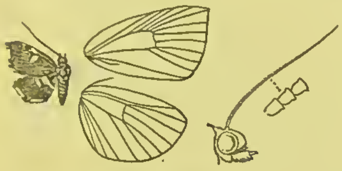

Fig. 239.
*Simæthistis tricolor*, ♂. $\frac{1}{1}$.

*Hab.* Dharmsála; Khásis. *Exp.* 16 millim.

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*Species recorded as* Pyralidæ *which are omitted.*

*Æschremon disparalis*, Herr.-Schäff., C. & S. no. 4364, is from Europe and Afghanistan.

*Ambia cæruleata*, Hmpsn. Ill. Het. ix, p. 179, pl. 174, fig. 29, is a Tineid near *Choreutis*.

*Anoristia venosella*, Moore, C. & S. no. 4600, is from Yarkand.

*Botys annulalis*, Wlk., C. & S. no. 4044. Type lost; description not recognizable.

*Botys brevilinealis*, Wlk., C. & S. no. 4048. Type lost; description not recognizable.

*Botys dryopealis*, Wlk., C. & S. no. 4054. Type lost; description not recognizable.

*Botys interruptalis*, Wlk., C. & S. no. 4060. Type lost; description not recognizable.

*Botys inanitalis*, Led., C. & S. no. 4058, is from Amboina.

*Botys myrinalis*, Wlk., C. & S. no. 4066. Type lost; description not recognizable.

*Botys nephealis*, Wlk., C. & S. no. 4067. Type lost; description not recognizable.

*Botys pharisalis*, Wlk., C. & S. no. 4073, is from Australia.

*Cataclysta magnificalis*, Hübn., C. & S. no. 4422, is from America.

*Cornifrons ulceratalis*, Led., C. & S. no. 4228, is from Syria.

*Chilo lincusalis*, Wlk., C. & S. no. 4675. Type lost; description not recognizable.

*Dapha valeusalis*, Wlk., C. & S. no. 4643, belongs to the Tineidæ.
*Ebulea camillalis*, Wlk., C. & S. no. 4130. Type lost; description not recognizable.
*Eudorea granitalis*, Moore, C. &. S. no. 4296, is from Yarkand.
*Hapalia dialis*, Wlk., C. & S. no. 4088. Type lost; description not recognizable.
*Hapalia thaisalis*, Wlk., C. & S. no. 4104. Type lost; description not recognizable.
*Hedylepta niobesalis*, Wlk., C. & S. no. 4347. Type lost; description not recognizable.
*Hapalia flavalis*, Schiff., C. & S. no. 4091, is from Europe.
*Homæosoma getusalis*, Wlk., C. & S. no. 4608. Type lost; description not recognizable.
*Hypocosmia definitalis*, Rag. Ann. Soc. Ent. Fr. (6) x, p. 505, pl. 7, fig. 11, is from Venezuela.
*Lacipea muscosella*, Wlk., C. & S. no. 4645. Type lost; description not recognizable.
*Letoa patulella*, Wlk., C. & S. no. 4641. Type lost; description not recognizable.
*Libuna solitella*, Wlk., C. & S. no. 4706. Type lost; description not recognizable.
*Midea rectalis*, Wlk. xxvii, p. 21; C. & S. no. 4731 = *Arsacia saturalis*, vol. ii. p. 567. Both the generic and specific names have priority.
*Moca lithosioides*, Moore, C. & S. no. 4638, is a Tineid.
*Moca velutina*, Wlk., C. & S. no. 4639, is a Tineid.
*Myelois basifuscalis*, Wlk., C. & S. no. 4559. Type lost; description not recognizable.
*Myelois marsyusalis*, Wlk., C. & S. no. 4561. Type lost; description not recognizable.
*Myelois griseella*, Moore, C. & S. no. 4647, is from Yarkand.
*Myelois unduloseIla*, Moore, C. & S. no. 4648, is from Yarkand.
*Nephopteryx æolusalis*, Wlk., C. & S. no. 4573. Type lost; description not recognizable.
*Nephopteryx argiadesalis*, Wlk., C. & S. no. 4574. Type lost; description not recognizable.
*Nephopteryx cyllusalis*, Wlk., C. & S. no. 4576. Type lost; description not recognizable.
*Nephopteryx etolusalis*, Wlk., C. & S. no. 4577. Type lost; description not recognizable.
*Nephopteryx harpaxalis*, Wlk., C. & S. no. 4579. Type lost; description not recognizable.
*Nephopteryx signella*, Rag., C. & S. no. 4583, is from Afghanistan.
*Nephopteryx phycisella*, Wlk., C. & S. no. 4585. Type lost; description not recognizable.
*Oligostigma crassicornalis*, Guen., C. & S. no. 4408, is from Java.
*Oligostigma gibbosalis*, Guen., C. & S. no. 4409, is from Java, Celebes, &c.
*Phakellura superalis*, Guen., C. & S. no. 4198, is from America.

*Phakellura translucidalis*, Guen., C. & S. no. 4199, is from America.

*Picnarmon discerptalis*, Wlk., C. & S. no. 4315 = *Leucinodes imperialis*, Guen., is from Honduras.

*Pyrausta ostrinalis*, Hübn., C. & S. no. 4336, is not Indian.

*Pyralis farinalis*, Linn., C. & S. no. 4446, is from Europe and Afghanistan.

*Pyralis janiusalis*, Wlk., C. & S. no. 4452. Type lost; description not recognizable.

*Pyralis palesalis*, Wlk., C. & S. no. 4455. Type lost; description not recognizable.

*Rehemina phycidalis*, Wlk., C. & S. no. 4139. Type lost; description not recognizable.

*Samea continentalis*, Guen., C. & S. no. 4242, is from America.

*Samea geographicalis*, Guen., C. & S. no. 4244, is from America.

*Surattha acreonalis*, Wlk., C. & S. no. 4719. Type lost; description not recognizable.

*Surattha annusalis*, Wlk., C. & S. no. 4722. Type lost; description not recognizable.

*Subrita bilineatella*, Wlk., C. & S. no. 4642. Type lost; description not recognizable.

# APPENDIX.

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This Appendix contains additions and corrections to the whole work, of which the present is the fourth volume. Species are indicated by their serial numbers, these being continuous throughout the four volumes: when a letter is added to a numeral, the species thus marked follows that to which the number belongs. Thus the place of 36*a*. *Ocinara cyproba* is immediately after 36. *O. signifera*, Vol. I, p. 34.

## SATURNIIDÆ.

28 *a*. **Salassa thespis**, *Leech, Entom.* 1890, p. 112.
Salassa megastica, *Swinh. Trans. Ent. Soc.* 1894, p. 153.

♂. Differs from *lola* in the hyaline spot of each wing being arge and lunulate; hind wing with a black edge to the white ring of the ocellus. Underside darker, with olive-yellow suffusion beyond the postmedial line.

♀ dark grey-brown suffused with olive-brown; the hyaline ocellate and postmedial spots larger.

The Sikhim male has some yellow suffusion towards apex of each wing.

*Hab.* China; Sikhim; Khásis. *Exp.*, ♂ 154–166, ♀ 162 millim.

31. Insert **Cricula multifenestrata**, *H.-S. Samml. aussereur. Schmett.* fig. 80, which has precedence.

## BOMBYCIDÆ.

36 *a*. **Ocinara cyproba**, *Swinh. Trans. Ent. Soc.* 1894, p. 154, pl. ii, fig. 1.

Pure white; antennæ pale fulvous. Fore wing with pale fuscous oblique band from lower angle of cell to inner margin; submarginal and almost marginal bands. Hind wing similar, but the medial band reduced to spots at end of cell and on inner margin; the marginal band incomplete.

*Hab.* Khásis. *Exp.* 32 millim.

## EUPTEROTIDÆ.

50 *a*. **Melanothrix nicevillei**, n. sp.

♂. Head and thorax chocolate-brown; abdomen pale brown with darker rings, yellow below. Fore wing pure white; the basal area chocolate-brown, extending to middle of costa and running out to three dentitions beyond lower angle of cell; a marginal chocolate band, wide at costa, narrowing to inner margin, its inner edge darkest and waved; cilia with white patches towards outer

angle. Hind wing pure white; a marginal narrow chocolate band with waved inner edge, and series of white spots on the cilia.

*Hab.* Toungoo, Burma (*De Nicéville*). *Exp.* 78 millim. Type in B. M.

58 *a.* **Pseudojana pallidipennis,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 278.

♂. Pale ochreous brown irrorated with fuscous; antennæ fuscous. Fore wing with slight dark suffusion from base through the cell and extending as dentate dark marks along the subcostal and median nervules; an oblique fuscous line from costa near apex to middle of inner margin, with three lines on a brownish ground beyond it, then two other lines; a series of fuscous specks from apex on a slight band of fuscous suffusion; a submarginal series of black specks connected by traces of a crenulate line. Fore wing with antemedial oblique diffused fuscous line followed by five lines, then a diffused fuscous band; a submarginal series of fuscous specks.

*Hab.* Tenasserim. *Exp.* 130 millim.

69. Omit *Eupterote fasciata*, Moore, from the synonymy.

69 *a.* **Eupterote fasciata,** *Moore, Lep. Ceyl.* iii, p. 544, pl. 212, fig. 1.
Horanpella cinnamomea, *Moore, Lep. Ceyl.* iii, p. 544, pl. 212, fig. 2.

♂. Differs from the *ochripicta* form of *fabia* in having the apex of fore wing more falcate; the rufous lines not waved.

♀ wholly suffused with rufous; the apex of fore wing more acute and produced than in *ochripicta*, the area on each side of the postmedial line with a purplish sheen.

*Larva* black, densely covered with red-brown sharply-pointed hairs—about eight fasciculated tufts to each somite—and with numerous longer white-tipped fuscous hairs; a lateral series of reddish-brown tubercles; an interrupted narrow white medial dorsal line with paired tufts of white hair meeting above it; head marked with pale yellowish; spiracles white; legs pale. Food-plants, *Eleocarpus*, *Artocarpus*, *Michelia*, and other trees.

*Hab.* Ceylon. *Exp.* 116 millim.

70 *a.* **Eupterote axesta,** *Swinh. Trans. Ent. Soc.* 1894, p. 157, pl. ii, fig. 2.

♂. Differs from *fabia* in being buff. Fore wing with two antemedial, one medial, and three postmedial lines reduced to spots; the double postmedial line not differentiated; the submarginal lunulate band complete. Hind wing with two medial waved lines, postmedial straight line, and prominent waved submarginal line.

♀ pale reddish brown, with the lines on basal area more or less obsolete.

*Hab.* Khásis. *Exp.* 62 millim.

76 *a.* **Eupterote calandra,** *Swinh. Trans. Ent. Soc.* 1894, p. 157.

Differs from *lineosa* in being uniform bright yellow without traces of markings.

*Hab.* Khásis. *Exp.*, ♂ 64, ♀ 80 millim.

2 G 2

82. **Eupterote vialis.**

♀ black-brown; thorax with the tips of the hairs prominently white; abdomen fulvous; the oblique line very indistinct on fore wing, obsolete on hind wing.

85 *a*. **Nisaga rufescens,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 278.

♂. Head, thorax, and abdomen bright rufous; wings pale rufous with a silvery-grey tinge. Fore wing with ill-defined antemedial, medial, and oblique postmedial dark rufous lines. Hind wing with indistinct broad postmedial dark rufous band composed of diffused lines.

*Hab.* Shimoga, Mysore. *Exp.* 50 millim.

## SPHINGIDÆ

### Genus **DEGMAPTERA**, nov.

Type, *D. mirabilis,* Roths.

*Range.* Sikhim; Khásis.

Differs from *Polyptychus* in the fore wing having the apex acute; the outer margin crenulate and produced to a point at vein 7; the inner margin deeply excised before outer angle. Hind wing with the costa slightly excised before middle, very deeply at middle, and expanding into a large lobe before apex; the anal angle lobed; veins 6, 7 hardly stalked; 8 almost touching 7 near its origin.

92 *a*. **Degmaptera mirabilis,** *Roths. Nov. Zool.* p. 542.

Deep ferruginous red, variegated with ochreous and orange-yellow. Fore wing with sinuous subbasal and antemedial lines with yellow between them; a fuscous-brown medial band from

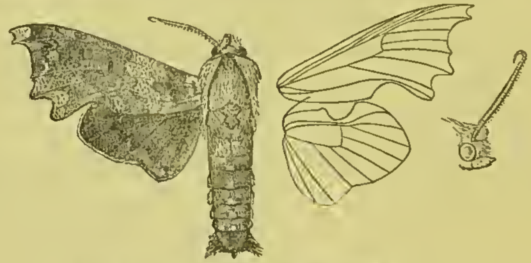

Fig. 240.—*Degmaptera mirabilis,* ♂. ½.

costa to vein 2; a small annulus at end of cell; an obliquely crenulate postmedial line; traces of an irregularly crenulate submarginal line; the area at apex and between lower angle of cell and outer angle variegated with ochreous and yellow and irrorated with ferruginous. Hind wing deep red-brown, with traces of red medial and submarginal bands. Underside variegated with ochreous and irrorated with ferruginous; both wings with distinct postmedial line.

*Hab.* Sikhim; Khásis. *Exp.* 60 millim.

Vol. I, p. 72. *Cypa olivacea*, Roths. Nov. Zool. p. 70.—Probably from Borneo only; the locality Sikhim requires confirmation.

110. Insert (as a synonym) *Clanis gigantea*, Roths. Nov. Zool. p. 96.

Pp. 84–94. The following species placed in *Chærocampa* have the orifice in the basal joint of palpi more or less developed, and should be placed in the genus *Theretra*:—120. *alecto*, Linn., 124. *lycetus*, Cram., 125. *oldenlandiæ*, Fabr., 126. *silhetensis*, Wlk., 128. *insignis*, Butl., 137. *velata*, Wlk., 139. *helops*, Wlk., 140. *lucasi*, Wlk., 141. *butus*, Cram., 144. *pallicosta*, Wlk.

130. Insert (syn.) *Panacra hamiltoni*, Roths. Nov. Zool. p. 82.

136. Insert **Chærocampa castor**, *Wlk. Cat.* viii, p. 152, which has priority.

137. Insert (syn.) *Metopsilus albomarginatus*, Roths. Nov. Zool. p. 78.

141. Insert (syn.) *Deilephila eyrene*, Westw. Cab. Or. Ent. p. 13, pl. 6, fig. 1.

P. 104. Genus **Pseudosphinx**. Insert after *Diludia* .. *Pseudodolbina*, Roths. Nov. Zool. p. 91 (1894).

166. Insert (syn.) *Pseudodolbina veloxina*, Roths. Nov. Zool. p. 91.

169. Insert (syn.) *Meganoton cocytioides*, Roths. Nov. Zool. p. 89. A large form of *discistriga*, ♀. *Exp.* 175 millim. Very dark and suffused with rufous. Andamans; Borneo; Australia.
Insert also *Meganoton khasianum*, Roths. Nov. Zool. p. 90.

181. Insert (syn.) *Macroglossa burmanica*, Roths. Nov. Zool. p. 68.

## NOTODONTIDÆ.

210. Insert **Tarsolepis sommeri**, *Hübn. Samml. exot. Schmett., Noct. Gen.* iv, figs. 1 & 2; which has precedence.

211 *a*. **Dudusa nobilis**, *Wlk. Cat.* xxxii, p. 447.

♂. Head and thorax pale reddish brown and buff; mesothorax with a pair of black spots; abdomen brown, with some black on dorsum. Fore wing reddish brown; a black speck on white patch at base; double crenulate ante- and postmedial lines approaching each other below the cell; an oblique dark fascia from middle of costa to outer angle; a white patch between the lines on costal area; traces of a submarginal dark line; a series of white and brown marginal lunules to each wing.

*Hab.* N. China; Khásis; Malacca; Celebes. *Exp.* 80–90 millim

## Genus PLUSIOGRAMMA.

Plusiogramma, *Hmpsn. Trans. Ent. Soc.* 1895, p. 278.

Type, *P. aurisigna*, Hmpsn.
*Range.* Tenasserim.
Palpi upturned, the 2nd joint broadly fringed with hair, the 3rd minute and concealed; antennæ of male bipectinated to apex. Fore wing with the outer margin somewhat excised from apex to vein 5, then oblique; vein 5 from near upper angle of cell; 6, 7, 8, 9 stalked; 10 free. Hind wing with vein 5 absent; 6, 7 stalked; 8 connected with 7 by a bar at middle of cell.

Fig. 241.—*Plusiogramma aurisigna*, ♂. $\frac{1}{1}$.

212 *a*. **Plusiogramma aurisigna**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 278.

♂. Head and thorax deep chocolate; abdomen fuscous. Fore wing deep chocolate; the base of inner margin pale; a subbasal golden spot below costa; a golden mark with speck below it on discocellulars in the form of an obliquely placed ' note of interrogation'; the area between the costa beyond middle and the outer angle suffused with grey; traces of a sinuous postmedial line and a minutely waved curved submarginal line; the outer margin grey below apex. Hind wing pale; the inner and outer areas suffused with rufous brown. Underside whitish, suffused and irrorated with rufous; a minutely waved submarginal line, almost obsolete on hind wing.

*Hab.* Dawnat Range, Tenasserim. *Exp.* 40 millim.

## Genus OMICHLIS.

Omichlis, *Hmpsn. Trans. Ent. Soc.* 1895, p. 279.

Type, *O. rufotincta*, Hmpsn.
*Range.* Burma.
Palpi obliquely porrect, the 2nd joint fringed with hair, the 3rd prominent; an acute frontal tuft. Fore wing with the apex acute; the outer margin angled at vein 4; vein 6 from above angle of cell; 8, 9 anastomosing to form the areole. Hind wing with the outer margin slightly angled at vein 4; vein 5 from above middle of discocellulars; 6, 7 stalked; 8 running close along 7 at middle of cell.

213 *a*. **Omichlis rufotincta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 279.

♀. Pale grey; thorax and fore wing suffused with pale rufous; head white; the palpi black at sides. Fore wing with traces of

numerous waved rufous lines; a black spot on vein 1 near base; some black specks on the postmedial line below the costa; traces of the orbicular and reniform stigmata with rufous outlines.

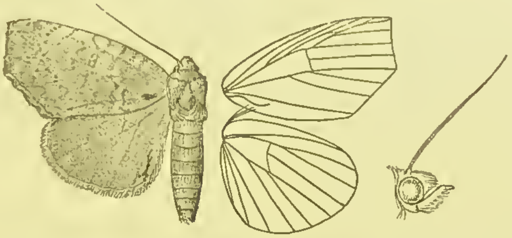

Fig. 242.—*Omichlis rufotincta*, ♀. ¾.

Hind wing reddish grey, with a slight rufous mark near anal angle.

*Hab.* E. Pegu, 5000 feet. *Exp.* 50 millim.

221 *a.* **Phalera bilineata,** n. sp.

Antennæ of male bipectinate for two-thirds length.

Dark brown and grey; collar edged with black; abdomen fuscous. Fore wing with a waved black, almost basal line with small rufous patches beyond it; a waved black, almost medial line; the reniform rufous on a grey patch; some grey patches beyond lower angle of cell; a prominent postmedial black line slightly excurved beyond lower angle of cell; a very irregular indistinct submarginal band, reddish on costal, greyish on inner half. Hind wing fuscous.

*Hab.* Bhután, 2500 feet (*Dudgeon*); Khásis. *Exp.* 56 millim. Type in B. M.

221 *b.* **Phalera innotata,** *Swinh. MS.*

Antennæ of male bipectinate; fore wing with vein 5 from middle of discocellulars; 6 from upper angle of cell.

♂. Head and thorax black-brown; abdomen fuscous. Fore wing black-brown with a slight greyish tinge, the costal area paler and slightly purplish, tapering to apex. Hind wing pale fuscous.

*Hab.* Khásis. *Exp.* 48 millim.

225 *a.* **Gargetta albovittata,** n. sp.

♂. Head dark brown; palpi below and shaft of antennæ whitish; thorax brown and whitish; abdomen fuscous. Fore wing fuscous, with a diffused whitish fascia on costal area leaving a dark fascia on costa from middle to near apex; the veins towards apex streaked with fuscous; a dark discocellular spot; some white specks on vein 1 aud a marginal series. Hind wing fuscous, with marginal series of white specks.

*Hab.* Khásis. *Exp.* 40 millim. Type in B. M.

225 *b*. **Gargetta lithosidia**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 280.

♂. Pale brownish ochreous. Fore wing with a rasp formed by corrugation of the membrane below the basal half of the cell, played on by the serrate costal edge of the hind wing; suffused with purplish fuscous except in the cell; a short black streak in end of cell; an almost straight ochreous submarginal line ending on outer margin above outer angle; a series of black strigæ on the margin. Hind wing whitish, slightly suffused with fuscous.

*Hab*. Sikhim. *Exp*. 40 millim.

227 *a*. **Turnaca delineivena**, *Swinh. Trans. Ent. Soc.* 1894, p. 159.

♀. Head, thorax, and fore wing greyish white slightly tinged with purple and rufous. Fore wing with dark streaks on median nervure and veins 2, 3, 4, 6, 7; the purple and rufous suffusion most prominent on inner area and median nervure. Abdomen and hind wing brown, the latter with the costa whitish.

*Hab*. Khásis. *Exp*. 66 millim.

## Genus **EUTORNOPERA**.

Eutornopera, *Hmpsn. Trans. Ent. Soc.* 1895, p. 280.

Type, *E. argentifascia*, Hmpsn.

*Range*. Bhután.

Palpi porrect, hairy, and not reaching beyond the frontal tuft; antennæ of male minutely serrate and fasciculate; abdomen long, with a forked anal tuft. Fore wing narrow, with the apex rounded; veins 3, 4 from angle of cell, 5 from middle of discocellulars; 6, 7, 8, 9, 10 stalked. Hind wing with veins 3, 4 from angle of cell; 5 curved and from below middle of discocellulars; 6, 7 stalked; 8 running close along 7 to near end of cell.

229 *a*. **Eutornopera argentifascia**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 289.

♂. Head yellowish white; the palpi fuscous; thorax rufous; abdomen pale fuscous brown. Fore wing rufous; the costa pale ochreous, with a silvery white fascia below it, widest before outer margin; a similar fascia from the end of cell to outer margin; a broader diffused yellow fascia from base to outer margin below median nervure and vein 2. Hind wing pale ochreous suffused with fuscous.

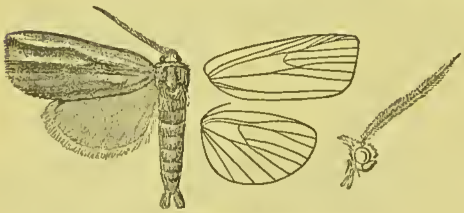

Fig. 243.—*Eutornopera argentifascia*, ♂. ½.

*Hab*. Bhután. *Exp*. 44 millim.

## Genus STENADONTA.

Stenadonta, *Hmpsn. Trans. Ent. Soc.* 1895, p. 281.

Type, *S. cyttarrosticta*, Hmpsn.
*Range.* Bhután.

Palpi upturned, reaching the vertex of head, the 3rd joint minute; antennæ of male ciliated. Fore wing long and narrow; the apex rounded; vein 6 from the middle of areole, which is long and narrow; 7, 8, 9 from beyond the areole, 10 from it. Hind wing with vein 5 from middle of discocellulars; 6, 7 stalked; 8 running close along 7 to near end of cell.

229 *b*. **Stenadonta cyttarrosticta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 281.

♂. Pale reddish brown suffused with fuscous. Fore wing with the basal and discal areas suffused with rufous; very indistinct

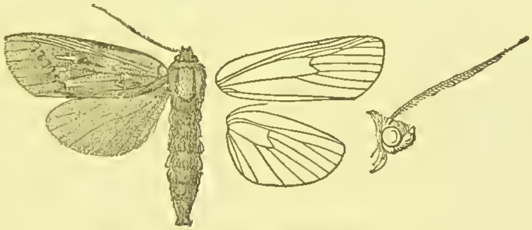

Fig. 244.—*Stenadonta cyttarrosticta*, ♂. 1/1.

minutely waved double ante- and postmedial lines, the latter with some dark specks beyond it; a black streak in end of cell, continued along vein 5 as a short white streak. Abdomen and hind wing dark fuscous.

*Hab.* Bhután. *Exp.* 45 millim.

230 *a*. **Pydna tenebralis**, n. sp.

♂. Head, thorax, and fore wing ochreous irrorated with fuscous; palpi with the 2nd joint black at sides. Fore wing with curved ante- and postmedial lines, the latter incurved below vein 3, the area between them suffused with rufous, with a black discocellular speck; a fuscous shade from apex; a submarginal series of dark specks. Abdomen and hind wing fuscous. Underside pale.

*Hab.* Sikhim (*Dudgeon*). *Exp.* 40 millim. Type in B. M.

230 *b*. **Pydna aroides**, *Swinh. A. M. N. H.* (6) xvii, p. 360.

♂. Sulphur-yellow. Fore wing with the medial area irrorated with rufous, the rest of the wing with fuscous and rufous; an indistinct antemedial line and similar postmedial line, both highly angled below the costa and reduced to specks towards inner margin, the latter minutely dentate from costa to vein 4; an oblique fuscous shade from apex to angle of postmedial line; a submarginal

series of dark specks. Hind wing bright ochreous without irroration.

*Hab.* Khásis. *Exp.* 36 millim.

232 *a*. **Pydna bela,** *Swinh. Trans. Ent. Soc.* 1894, p. 159.

♂. Head, thorax, and abdomen bright orange irrorated with red; palpi blackish at sides. Fore wing with indistinct oblique fuscous streak from apex to end of cell: traces of a submarginal series of dark specks. Abdomen and hind wing ochreous with a slight red tinge. Underside whitish.

*Hab.* Khásis. *Exp.* 36 millim.

233. **Pydna nana.** ♀ with the hind wing whitish. Travancore.

234. **Pydna pallida.** Transfer to Sect. B.

Omit *Pydna notata*, Swinh. (*v.* Vol. IV, p. 25), and insert *Pydna essa*, Swinh. A. M. N. H. (6) xvii, p. 360.

236 *a*. **Pydna crenelata,** *Swinh. A. M. N. H.* (6) xvii, p. 361.

♂. Grey suffused with pale brown; palpi black at sides. Fore wing with the inner area and a fascia from median nervure to outer margin suffused with brown; some black specks below basal half of costa and on median nervure; a black spot below origin of vein 2; two obscure marks beyond the discocellulars; a highly crenulated double postmedial line prominent from costa to vein 4, then obsolescent, met by an oblique rufous streak from apex; a marginal series of black specks. Hind wing fuscous brown, the cilia grey. Underside fuscous, with the costa and outer margin of each wing yellowish.

*Hab.* Khásis. *Exp.* 36 millim.

236 *b*. **Pydna rosacea,** n. sp.

♂. Head pale; thorax and abdomen brownish ochreous. Fore wing pale pinkish; the basal inner area to end of cell brownish, with fulvous-yellow suffusion at base and on inner margin; slight ante- and postmedial series of black specks; a pale dash in cell and round discocellular spot; a prominent postmedial black spot on costa and marginal series of specks; two diffused oblique fuscous bands from near apex interrupted by the pinkish veins. Hind wing fuscous, with a pinkish tinge towards margin; the cilia pale.

The Pegu specimen is without the black specks and spot on fore wing, and has the inner of the two oblique bands from apex much more prominent.

*Hab.* Khásis; Pegu. *Exp.* 36 millim. Types in coll. Elwes and B. M.

244 *a*. **Pydna acyptera,** n. sp.

Antennæ of male minutely serrate; fore wing with the apex acute, the outer margin oblique.

Bright yellow; collar with a brown tinge; palpi black at sides. Fore wing irrorated with fine rufous and black scales; two indistinct crenulate rufous antemedial lines angled at middle and two similar oblique lines from apex, the inner running to middle of inner margin; a prominent medial black spot below the cell; postmedial and submarginal series of black specks on the veins. Hind wing suffused with rufous brown, except the apical and outer areas.

*Hab.* Khásis. *Exp.* 60 millim. Type in coll. Elwes.

247 *a*. **Ramesa docilis**, *Wlk. Cat.* xi, p. 735; *C. & S.* no. 2039.

Greyish brown; patagia greyer; metathorax blackish. Fore wing with a broad pale fascia from base below median nervure to inner margin; black streaks in cell and on vein 1 at base; two dark curved postmedial lines, the inner very indistinct; a submarginal series of black specks.

One specimen is redder, especially from lower angle of cell of fore wing to outer margin.

*Hab.* Simla; Sikhim. *Exp.* 34 millim.

249 will stand as **Pydna albistriga** and will form Sect. III. of **Pydna**.—Antennæ of male minutely fasciculate. Fore wing with veins 7, 8, 9 stalked. Hind wing with a fold on inner area below containing a tuft of long fulvous hair.

Vol. I, p. 144. *Anticyra* is preoccupied in the order *Neuroptera*, so **Dinara** will stand.

256. **Fentonia obliquiplaga.** Antennæ of male with small fascicles of cilia.

258 *a*. **Fentonia viridinota**, n. sp.

♂. Head and abdomen purplish brown; thorax and anal tuft bright yellow-green. Fore wing red-brown, irrorated with black and green; a bright yellow-green patch on middle of inner area, another on costa beyond middle with a white spot on it; a submarginal series of black specks with some white beyond those in the middle; a marginal series of green spots. Hind wing red-brown.

*Hab.* Bhután (*Dudgeon*). *Exp.* 30 millim. Type in B. M.

258 *b*. **Fentonia canifusa**, n. sp.

♂. Head and thorax red-brown, patagia and metathorax grey; abdomen dark red-brown, with grey on dorsum and terminal segment. Fore wing red-brown; the inner area irregularly suffused with grey; a large irregular patch of grey from apex to vein 3; an obscure grey discocellular spot; ill-defined double waved subbasal, ante- and postmedial lines. Hind wing brown suffused with grey. Underside whitish grey, except the discal area of fore wing.

*Hab.* Khásis. *Exp.* 48 millim. Type in coll. Elwes.

268. **Stauropus perdix**, *Moore, Lep. Atk.* p. 58, pl. 3, fig. 3; *C. & S.* no. 988, has precedence (see no. 1005).

300. ? **Hyperæschra variegata.** Transfer to **Fentonia** (Vol. I, p. 147), Sect. I. *b*.

303 *a*. **Lophopteryx crenulata**, n. sp.

Differs from *saturata* in the colour being brighter rufous. Fore wing with the outer margin highly crenulate; the ante- and post-medial lines more waved and less dentate; the outer area more or less suffused with ochreous. Hind wing paler, with the patch at anal angle smaller.

*Hab.* Yatong, Sikhim, 13,000 feet (*Bingham*). *Exp.* 44–50 millim. Type in B. M.

### Genus **LEUCOLOPHA**, nov.

Type, *L. undulifera*, Hmpsn.

*Range.* Khásis.

Palpi porrect and reaching just beyond the frontal tuft; antennæ of male fasciculate, with a tuft of white hair on basal joint; tibiæ fringed with long hair. Fore wing broad, the apex acute, the inner margin evenly rounded; vein 6 from upper angle of cell; 7 from end of areole, which is formed by 9 and 10 anastomosing strongly with 8. Hind wing with veins 6, 7 stalked; 8 running along cell to middle.

314 *a*. **Leucolopha undulifera**, n. sp.

♂. Brick-red, slightly irrorated with grey; the tuft on basal joint of antennæ pure white. Fore wing with a brown line from base of inner margin, with an upward curve to upper angle of cell, then with a downward curve to apex; a short subbasal line; a prominent straight medial line with pale outer edge not reaching

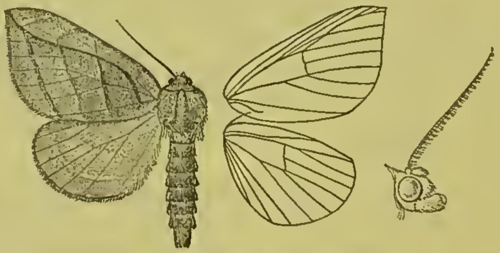

Fig. 245.—*Leucolopha undulifera*, ♂. 1/1.

costa; postmedial and submarginal lines angled below costa, the latter most prominent. Hind wing paler, with traces of medial and submarginal curved lines; cilia of both wings brown.

*Hab.* Khásis. *Exp.* 50 millim. Type in coll. Elwes.

## Genus EUPLEXIDIA.

Euplexidia, *Swinh. MS.*

Type, *E. noctuiformis,* Swinh.
*Range.* Khásis.

Palpi upturned, the 2nd joint reaching vertex of head and thickly scaled, the 3rd oblique; antennæ of male minutely ciliated; metathorax and medial abdominal segments with dorsal tufts; tibiæ hairy. Fore wing with the apex rounded; vein 10 anastomosing slightly with 8, 9 to form the areole. Hind wing with vein 5 almost obsolete and from middle of discocellulars; 6, 7 stalked; 8 leaving the cell close to the base.

### 314 *b.* Euplexidia noctuiformis, *Swinh. MS.*

♂. Head, thorax, and abdomen pale rufous; frons white; collar, tegulæ, and metathoracic tuft tipped with grey. Fore wing pale rufous irrorated with black; some grey-green and black markings on costa and a small subbasal spot; a black -shaped mark below end of cell, with fuscous in the loop and grey-green below the top stroke; a speck in cell and traces of a grey-green outline to the obscure reniform stigma; a postmedial black and grey-green mark on inner margin; an indistinct sinuous whitish submarginal line. Hind wing silvery white, with a fuscous marginal line; underside with indistinct postmedial line, incurved and obsolescent below vein 6.

Fig. 246.—*Euplexidia noctuiformis,* ♂. $\frac{1}{1}$.

*Hab.* Khásis. *Exp.* 38 millim.

### 319 *a.* Ichthyura anastomosis, *Linn. Syst. Nat.* i, 2, p. 824.

♂. Brown; the vertex of head and a triangular patch on collar and thorax dark chocolate. Fore wing with a greyish tinge on basal area; two oblique fuscous-edged grey antemedial lines; a discocellular line on an obscure round stigma; a postmedial line excurved below costa and slightly curved from vein 3 to inner margin; an obscure waved submarginal line, with some greyish patches on its inner edge from costa to vein 3, where it is bent inwards; some rufous at middle of outer area.

♀ paler, with the thorax and fore wing ochreous in tone, the latter with the apical area rufous. Hind wing with an indistinct medial line.

*Hab.* Europe; Siberia; Ceylon. *Exp.*, ♂ 38, ♀ 46 millim.

### Genus ACIDON, nov.

Type, *A. paradoxa*, Hmpsn.
*Range.* Bhután.

Palpi obliquely upturned, the 2nd joint reaching apex of frontal tuft, the 3rd long and spatulate at extremity; antennæ of male fasciculate; patagia with long spatulate scales; abdomen with large dorsal tuft on 1st segment and smaller tuft on 2nd; tibiæ moderately hairy. Fore wing very long and narrow, the apex produced and somewhat falcate, the outer margin very oblique; veins 2, 3 stalked; 4 from angle; 5 from middle of discocellulars; 6 from upper angle; 7, 8, 9 stalked, 8 being curved down to near 7, then up to the costa; 10, 11 free, 10 being curved down close to 8, 9. Hind wing long and narrow; veins 3, 4 from angle of cell; 5 from middle of discocellulars; 6, 7 stalked; 8 from middle of cell.

321 *a*. **Acidon paradoxa**, n. sp.

♂. Head, thorax, and fore wing purplish, irrorated with fuscous; the last with sinuous antemedial and medial ochreous and fuscous lines; traces of a postmedial line terminating at outer angle; some

Fig. 247.—*Acidon paradoxa*, ♂. ½.

submarginal white specks. Abdomen fuscous with an ochreous tinge. Hind wing fuscous, pale at base and with a small mark above anal angle.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

## CYMATOPHORIDÆ.

332 *a*. **Gaurena tenuis**, n. sp.

♀. Fuscous; build slender. Fore wing with the basal area greyish, bounded by an obliquely sinuous line; small, dark-edged, grey orbicular and reniform spots; an ill-defined sinuous grey line from lower angle of cell to inner margin; an irregular grey submarginal line joined by an oblique mark from apex. Hind wing grey.

*Hab.* Yatong, Sikhim, 13,000 feet (*Bingham*). *Exp.* 34 millim. Type in B. M.

332 *b*. **Gaurena argentisparsa**, *Dudgeon, MS.*

Head and thorax black and white; abdomen fuscous. Fore

wing grey irrorated with black; a black-edged white spot at base below median nervure; a white antemedial band edged by irregularly-waved black lines; a small black-edged white orbicular and large round reniform stigma, with a black-edged white band from it to inner margin, its inner edge dentate; a waved postmedial line with diffused white band beyond it forking to apex; some submarginal white specks and an irregular patch at anal angle; a marginal series of white lunules. Hind wing fuscous, with traces of postmedial and submarginal lines towards inner margin.

*Hab.* Yatong, Sikhim, 13,000 feet. *Exp.* 36 millim. Types in coll. Dudgeon and B. M.

334 *a*. **Gaurena solena,** *Swinh. A. M. N. H.* (6) xiv, p. 431.

♂. Antennæ somewhat thickened and flattened. Head, thorax, and abdomen brownish grey. Fore wing silvery grey; the medial area suffused with rufous, and with two double dark lines on it which almost meet below the cell; a nearly straight erect postmedial line; an ochreous-white costal patch before the apex, with an indistinct dentate submarginal line arising from it; a dark marginal line; the cilia intersected with black. Hind wing fuscous; the basal area and a medial band paler; cilia pale, intersected with black.

*Hab.* Khásis. *Exp.* 44 millim.

334 *b*. **Polyploca bifasciata,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 281.

♂. Silvery greyish-white. Fore wing with diffused ante- and postmedial fuscous bands, the former with slightly waved edges and oblique, the latter slightly excurved at middle; a fine oblique apical streak.

*Hab.* Sikhim. *Exp.* 40 millim.

336 *a*. **Polyploca galema,** *Swinh. A. M. N. H.* (6) xiv, p. 431.

♂. Pale brown; palpi blackish; head and thorax darker brown. Fore wing with subbasal dark line highly angled below median nervure; an antemedial double obliquely curved line slightly widening and filled in with dark brown towards costa; the area between it and subbasal line darker than ground-colour, with an indistinct waved line on it; a small dark round spot at middle of cell, with an indistinct highly crenulate medial line curving round it; a slightly sinuous curved double postmedial line dilated and filled in with dark brown at costa; two indistinct waved submarginal lines; an oblique bent black streak from apex; a fine dentate black marginal line. Hind wing fuscous brown, with dark line through the cilia.

*Hab.* Khásis. *Exp.* 48 millim.

339 *a*. **Polyploca polychromata,** n. sp.

♀. Head, thorax, and abdomen pale brown, the thorax variegated with rufous and dark brown scales. Fore wing with the

ground-colour pale brown, thickly irrorated with rufous and fuscous; a patch of bright yellow scales below base of cell, with some bright ferruginous beyond these; an antemedial band formed of three bisinuate dark lines; a quadrate white spot on middle of inner margin; a bright yellow fascia along vein 2; a black discocellular line; some bright ferruginous beyond cell; numerous indistinct sinuous dark lines on outer area; an oblique black streak from apex expanding into a diffused fuscous patch beyond lower angle of cell; a dentate submarginal white line; a marginal series of black specks. Hind wing pale fuscous.

*Hab.* Sikhim (*Möller*). *Exp.* 36 millim. Type in coll. Elwes.

Vol. I, p. 184. The genus **Polyploca** has the eyes hairy, whilst **Palimpsestes**, to which genus *albicosta*, Moore, and *albibasis*, Hmpsn., should be referred, has them smooth.

344. Insert **Toxoides undulata**, *Moore, P. Z. S.* 1867, p. 45; *C. & S.* no. 1650; which has precedence.

## SESIIDÆ.

350. **T. scolioides** has the antennæ pectinated in male.

355 *a*. **Sciapteron xanthozonatum**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 282.

♂. Antennæ minutely fasciculate; hind wing with vein 5 from close to upper angle of cell. Black; palpi mostly golden yellow; frons ringed with white; collar and patagia fringed with yellow; abdomen with the 1st, 2nd, and 4th segments fringed with yellow; legs black and yellow; hind tarsi with the proximal joints fringed with black and grey hair, coxæ with some grey hair. Wings hyaline, with the veins black; the margins black; fore wing with a black discocellular band.

♀ with all the segments of abdomen banded with yellow; some yellow on inner margin of each wing near base; a few orange scales beyond the discocellular band of fore wing.

*Hab.* Tenasserim. *Exp.*, ♂ 24, ♀ 30 millim.

377 *a*. **Adixoa cruentata**, *Swinh. A. M. N. H.* (6) xvii, p. 359.

♀. Head, thorax, and abdomen black; palpi marked with white and blood-red, the antennæ with blood-red; pectus whitish: abdomen marked with blood-red at sides, below, and on anal tuft; legs red and black. Fore wing with the basal half blood-red; the costa black; a broad medial black band; the outer area hyaline, with black streaks on veins and in interspaces; the margins black. Hind wing hyaline; the inner area, median nervure, and costa blood-red; a broad black discocellular band; the veins of outer area, outer part of costa, and outer margin black.

*Hab.* Khásis. *Exp.* 16 millim.

382 *a*. **Aschistophleps metachryseis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 282.

♂. Head, thorax, and abdomen blackish; palpi golden yellow below; tibiæ and tarsi black ringed with orange. Fore wing black-brown. Hind wing golden yellow, with a broad black marginal band sending a streak inwards along median nervure. Underside of both wings orange, with broad black marginal band; fore wing with the costa and inner margin blackish; a black spot on discocellulars.

*Hab.* Kalewa, Upper Burma. *Exp.* 16 millim.

## SYNTOMIDÆ.

403 *a*. **Syntomoides semicincta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 282.

♀. Head, thorax, and abdomen black shot with green; frons dirty white, antennæ white at tips; collar and spot on patagia dull golden; abdomen with a pair of pinkish golden spots on 1st segment; a band on 5th segment, and lateral bands not meeting on dorsum on the 3rd and 4th segments. Fore wing black with a slight purple tinge; milky hyaline patches in and below cell, in the interspace above vein 2, and five patches beyond the cell, the one between veins 5 and 6 in the form of a short streak. Hind wing hyaline, with the veins and margins black.

*Hab.* Tenasserim. *Exp.* 42 millim.

405 *a*. **Syntomoides quisqualis**, *Swinh. A. M. N. H.* (6) xiv, p. 441.

Frons white; antennæ tipped with white; meso- and metathorax with orange patches; abdomen with six orange bands, the extremity orange in female. Fore wing black, with a hyaline patch in cell; a large patch below the cell, sometimes with a black band across it; a large spot above vein 6 and two spots in the interspaces between veins 3 and 5. Hind wing hyaline, with the costal and apical areas broadly black; the marginal area black, and widest at vein 2.

*Hab.* Khásis. *Exp.* 36 millim.

407 *a*. **Syntomoides ginorea**, *Swinh. A. M. N. H.* (6) xiv, p. 441; *id. Trans. Ent. Soc.* 1895, pl. i, fig. 8.

♂. Black; frons yellowish; antennæ white at tips; abdomen with yellow band on basal segment. Fore wing with large hyaline space in end of cell, a spot between bases of veins 2 and 3, a large space below vein 2; a streak above vein 6, with small spot above it above vein 7; an elongate spot on each side of vein 4. Hind wing with hyaline spot between end of cell and inner margin.

*Hab.* Khásis. *Exp.* 22 millim.

415. *Syntomis georgina* = 412. **S. cyssea**. The forms with the yellow and black frons have been taken *in coitu* (*Watson*).

433 *a*. **Syntomis polyzonata,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 283.

♀. Antennæ whitish at tip; frons yellowish white; collar, tegulæ, and metathoracic band orange; abdomen with the bands on first and last segments broad; wings with the hyaline markings vitreous, the black areas rather wide. Fore wing with an orange spot at base; a large hyaline patch in cell, two in interno-median interspace divided by a black bar, two between veins 3 and 5, and one above vein 6 with a smaller patch above it; veins 2, 3 and 4, 5 closely approximated and without hyaline between them. Hind wing with orange patch on basal inner area; a hyaline speck in cell; a large patch below the cell and two patches between veins 3 and 5.

*Hab.* N. Khyen Hills. *Exp.* 40 millim.

447. *Syntomis blanchardi* = 431. **S. lepcha.**

458 *a*. **Syntomis plumalis,** n. sp.

♂. Head, thorax, and abdomen black-brown; frons, collar, and a patch on metathorax yellow; abdomen with short dorsal band on each segment and the underside yellow; wings hyaline. Fore wing with the costa and inner margin black, with some yellow scales towards base; the veins and a discocellular patch black; a marginal black band, narrow between veins 3 and 5. Hind wing with the veins, costal and outer margins black.

*Hab.* Toungoo, Burma (*De Nicéville*). *Exp.* 20 millim. Type in B. M.

458 *b*. **Syntomis annosa,** *Wlk. Journ. Linn. Soc.* iii, p. 183; *Swinh. Cat. Het. Mus. Oxon.* pl. ii, fig. 17.

♀. Frons and tips of antennæ white; patagia with white spots; abdomen shot with dull metallic green and with a paired series of lateral white spots; wings black with slight whitish suffusion. Fore wing with large hyaline patches in and below cell; a spot in interspace above vein 2; five spots varying in size in the interspaces beyond the cell, the spot above vein 7 small. Hind wing with hyaline patch in cell; two patches below it and two beyond it.

*Hab.* Tenasserim; Singapore. *Exp.* 50 millim.

461 *a*. **Syntomis penanga,** *Moore, Lep. E. I. C.* p. 325.

Antennæ bipectinate in both sexes. Black; the frons, collar, and a patch on metathorax orange; abdomen with five orange bands. Fore wing with orange streaks from base below costa and median nervure; a large hyaline spot in end of cell, and trifid spot below the end; a spot beyond the cell, bifid in one specimen, quadrifid in another. Hind wing hyaline suffused with orange; an apical black band narrowing to anal angle.

*Hab.* Tenasserim; Penang. *Exp.* 28 millim.

# ZYGÆNIDÆ.

477 *a*. **Chrysartona flavigula**, n. sp.

♂. Head, thorax, and abdomen black above, shot with brilliant metallic blue; below bright yellow; wings black, with the basal half shot with bright metallic blue, on hind wing running out to beyond the cell and to anal angle; hind wing with the cilia white.

*Hab*. Khásis. *Exp*. 20 millim. Type in coll. Elwes.

## Genus SCAPTESYLIX.

Scaptesylix, *Hmpsn. Trans. Ent. Soc.* 1895, p. 283.

Type, *S. hemichryseis*, Hmpsn.

*Range*. Burma.

Palpi projecting well beyond the frons; antennæ of female minutely ciliated; tibiæ hairy, with the spurs long; wings short and broad. Fore wing with veins 2 and 3 from angle of cell; 4 from above angle; 5 from just below middle of discocellulars; 6 from near upper angle; 7, 8 stalked; 9, 10, 11 free. Hind wing with vein 2 from near angle of cell; 4 from well above angle; 5 from near upper angle; 6, 7 on a long stalk; 8 connected with 7 by a bar at middle of cell.

481 *a*. **Scaptesylix hemichryseis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 283.

♀. Bright golden yellow; palpi with black ring on 3rd joint; antennæ dark; abdomen with the extremity black. Fore wing with the outer half black suffused with purple, and with a postmedial yellow spot on costa, its inner edge slightly angled outwards at lower angle of cell. Hind wing with the outer area black, broad at costa, tapering to anal angle.

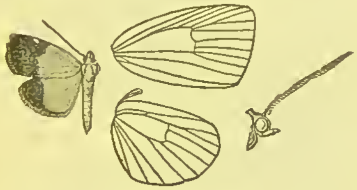

Fig. 248.
*Scaptesylix hemichryseis*, ♀. 1/1.

*Hab*. Dawnat Range, Tenasserim. *Exp*. 20 millim.

501 *a*. **Clelea bipuncta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 283.

♂. Dark fuscous, suffused with very dark blue. Fore wing with two postmedial white specks on veins 4 and 7.

*Hab*. Coimbatore. *Exp*. 14 millim.

501 *b*. **Clelea metacyanea**, n. sp.

♂. Black; head and thorax with leaden tinge; proboscis

fulvous; abdomen shot with metallic blue-green. Fore wing with the basal area leaden colour; a broad postmedial leaden-coloured band. Hind wing metallic blue above and below, leaving the apical parts of costal and outer areas black.

*Hab.* Khásis. *Exp.* 20 millim. Type in coll. Elwes.

507 *a.* **Goë sizala,** *Swinh. A. M. N. H.* (6) xiv, p. 441; *id. Trans. Ent. Soc.* 1895, pl. i, fig. 3.

♂. Head and thorax black; the frons, shaft of antennæ, and collar shot with metallic blue; abdomen greenish black. Fore wing black, with metallic blue streak below base of costa; obsolescent hyaline streaks below costa, in cell, and interno-median interspace, and in the interspaces beyond cell. Hind wing hyaline, the veins black; the costal, outer and inner margins broadly black, the outer most widely so towards anal angle.

*Hab.* Khásis. *Exp.* 28 millim.

## Genus CHALCOSIOPSIS.

Chalcosiopsis, *Swinh. A. M. N. H.* (6) xiv, p. 442 (1894).

Type, *C. variata*, Swinh.

*Range.* Khásis.

♀. Palpi reaching just beyond the frons; antennæ minutely ciliated; mid tibiæ with a minute pair of spurs, hind tibiæ with a long medial pair and minute terminal pair. Fore wing short and broad; the costa arched near base; the apex produced; the outer margin excised below apex, then much excurved; vein 3 from near angle of cell; 5 from just below angle of discocellulars; 6, 7, 8 stalked; 9, 10, 11 free; 12 short. Hind wing with the outer margin excised below apex, then much excurved; vein 3 from near angle of cell; 5 from near upper angle; 6, 7 stalked.

515 *a.* **Chalcosiopsis variata,** *Swinh. A. M. N. H.* (6) xiv, p. 442.

♀. Black-brown; palpi, frons, and neck marked with white; abdomen with segmental white rings; pectus and abdomen below white. Fore wing with an oblique white band from costa before middle to vein 2 near outer margin; a short oblique white band from costa near apex, continued as a waved grey submarginal band sending a tooth inwards to meet the oblique band at vein 2; cilia white at base. Hind wing with the

Fig. 249.—*Chalcosiopsis variata*, ♀. 1/1.

base fuscous; a large white patch from near end of cell to near outer margin, thence obliquely waved to inner margin before middle; the outer black area shot with metallic blue; cilia with tho bases white, wholly white near apex.

*Hab.* Khásis. *Exp.* 36 millim.

527. Insert **Soritia bicolor**, *Moore, Trans. Ent. Soc.* 1884, p. 355; *C. & S.* no. 390; which has precedence.

539 *a*. **Heteropan leis**, *Swinh. A. M. N. H.* (6) xiv, p. 442.

♂. Very dark green. Fore wing with the cilia white at apex. Hind wing fuscous black, with a large orange patch below apical half of costa. Underside fuscous black; fore wing with a large orange postmedial patch below the costa; hind wing with a broad orange fascia below the costa interrupted by a black streak from the base.

*Hab.* Khásis. *Exp.* 30 millim.

## Genus HAMPSONIA.

Hampsonia, *Swinh. A. M. N. H.* (6) xiv, p. 443 (1894).

Type, *H. pulcherrima*, Swinh.

*Range.* Assam.

Palpi minute and porrect; frons produced to a large rounded prominence; antennæ of female with the branches short and dilated at extremity; mid and hind tibiæ with minute terminal pairs of spurs. Fore wing with the costa much arched towards

Fig. 250.—*Hampsonia pulcherrima*, ♀. $\frac{1}{1}$.

apex; the outer margin somewhat excised; veins 2 and 3 at even distances before end of cell, the latter curved; 4, 5 stalked and much curved; 6 from upper angle; 7, 8 stalked from 9; 10, 11 from long before end of cell. Hind wing with voins 2 aud 3 at even distances before angle of cell and much curved; 4, 5 stalked and curved; 6, 7 from upper angle; 8 connected with 7 by an oblique bar; a veinlet in cell of each wing.

585 *a*. **Hampsonia pulcherrima**, *Swinh. A. M. N. H.* (6) xiv, p. 443; *id. Trans. Ent. Soc.* 1895, pl. i, fig. 9.

♀. Head, thorax, and abdomen very dark metallic blue. Fore wing black, the base bluish; a golden-yellow subbasal band from costa to vein 1 *b*; an obscure oblique grey antemedial band from costa to vein 1 *b*; a large yellow spot in end of cell and spot in interno-median interspace below the end; the interspaces of outer area suffused with grey; a large postmedial yellow spot above vein 3 and submarginal spot above vein 4. Hind wing black; a golden-yellow fascia in base of cell, continued to apex as a broad scarlet fascia; a golden-yellow fascia on inner area to beyond middle, with four large lunulate scarlet patches between it and apex.

*Hab*. Khásis. *Exp*. 60 millim.

586. **Campylotes histrionicus**, *Westw.* Insert *Campylotes excelsa*, Oberth. Ét. Ent. xx, p. 54, pl. x, f. 178. The form *excelsa*, from 16,000 ft. in Sikhim, differs from *altissima* in the fore wing having the yellow markings obsolescent; the spots in and above end of cell hyaline, also the spot beyond end of cell above vein 5 and the submarginal lunulate spot between veins 3 and 4; the marking of hind wing hyaline, with hardly a trace of colour.

590 *a*. **Isbarta cyanescens**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 284.

♂. Head and thorax metallic blue, slightly marked with white; abdomen ringed with white. Fore wing with the basal half grey, with metallic blue streaks on the veins and black streaks in and below cell; the outer half black, with two whitish spots in cell, five beyond the cell followed by a spot above vein 6 and a submarginal series. Hind wing yellowish white; the cell and interspaces below slightly suffused with blue; the apical area black, with some whitish spots on its inner edge. Underside of fore wing with the veins and margins suffused with metallic blue, the white spots prominent; hind wing chrome-yellow; the costa white and black; the apical area black suffused with metallic blue, and with whitish spots on its inner edge.

*Hab*. Tenasserim. *Exp*. 62 millim.

601 *a*. **Philopator rotunda**, n. sp.

Differs from *basimaculata* in the wings being much shorter and rounder. Fore wing with the streaks of outer area broader and filling almost the whole interspaces. Hind wing with hardly a trace of the mark in the cell, the streaks of outer area rather more developed.

*Hab*. Sikhim; Khásis; Nágas; Manipur. *Exp*., ♂ 40, ♀ 48 millim. Types in coll. Elwes and B. M.

Vol. I, p. 283. *Chelura* being preoccupied, substitute Genus **Achelura**, Kirby, Cat. Lep. Het. p. 56 (1892).

610 *a*. Alophogaster serraticornis, n. sp.

♂. Antennæ with roughly scaled serrations. Antennæ black, with the tips white; head, thorax, and abdomen scarlet, the las with black dorsal bands. Fore wing scarlet, with a large semicircular black apical patch. Hind wing hyaline, the veins black; the outer margin suffused with fuscous; some scarlet hairs on inner area.

*Hab*. Khásis. *Exp*. 30 millim. Types in coll. Elwes and B. M.

## Vol. I, p. 289. Family NEOCASTNIIDÆ.

Differs from the *Castniidæ* (Vol. I, p. 10) in the proboscis being absent. Both wings with vein 1 *c* absent, the cell open, and no veinlets in the cell.

### Genus NEOCASTNIA.

Neocastnia, *Hmpsn. Trans. Ent. Soc.* 1895, p. 285.

Type, *N. nicevillei*, Hmpsn.

*Range*. Tenasserim; Palawan; Borneo.

Proboscis absent; palpi with the 2nd joint very slender, long, curved obliqnely upwards and reaching far above vertex of head, the 3rd short; antennæ gradually thickening into an elongate club

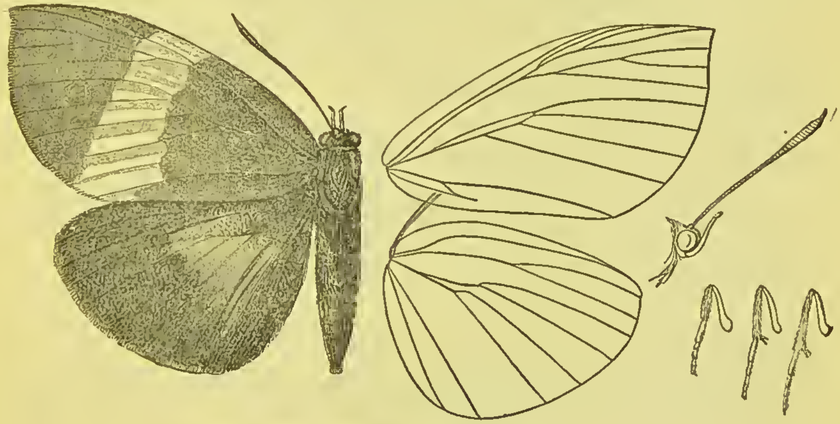

Fig. 251.—*Neocastnia nicevillei*, ♂. 1/1.

tapering to a point at apex; tibiæ and tarsi very thickly set with spines; mid and hind tibiæ with minute terminal pairs of spurs. Fore wing broad; the costa arched at base and towards apex, which is acute; the onter margin rounded; the inner margin lobed before middle; vein 1 *a* joined by a spur given off from 1 *b*; 1 *c* absent; 2 and 3 at even distances before end of cell; 4, 5 from

a point; the cell open; 7, 8 on a long stalk from 6; 9, 10 on a long stalk from 11. Hind wing with the costa arched near base; the apex rectangular; the outer margin rounded; two internal veins; veins 2 and 3 shortly stalked from the median nervure; 4, 5 from a point; the cell open; 6, 7 from a point; 8 running along the subcostal nervure for a short distance, then suddenly arched.

615 *a*. **Neocastnia nicevillei**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 286.

♀. Head and thorax golden rufous, the vertex of head metallic blue-green; abdomen black, suffused with metallic peacock-blue above. Fore wing golden rufous, with a broad creamy-white band from costa just beyond middle to outer angle, with sinuous inner edge bent outwards just above inner margin. Hind wing black; the area from beyond and in end of cell to anal angle and base of inner margin brilliant metallic peacock-blue with deep cerulean blue shot round its edges. Underside of thorax and legs orange-fulvous; the basal half of each wing shot with metallic blue; fore wing with a fulvous subapical spot.

*Hab.* Tenasserim. *Exp.* 90 millim.

## PSYCHIDÆ.

630 *a*. **Acanthopsyche** (*Metisa*) **canifrons**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 286.

♂. Uniform dark fuscous; the frons hoary. Fore wing with veins 7, 8, 9 stalked.

*Hab.* Sikhim. *Exp.* 20 millim.

631 *a*. **Acanthopsyche** (*Metisa*) **hypoleuca**, n. sp.

♂. Pale brown. Fore wing with a slight greyish tinge; the costa dark. Hind wing with the apex whitish; cilia of both wings fuscous. Underside of hind wing white.

*Hab.* Ceylon (*Green*). *Exp.* 22 millim. Type in B. M.

638 *a*. **Psyche** (*Eurycyttarus*) **melanostola**, n. sp.

♂. Head, thorax, and abdomen clothed with black hair. Wings reddish brown, the veins and margins darker.

*Hab.* Khásis. *Exp.* 20 millim. Types in coll. Elwes and B. M.

645 *a*. **Mahasena graminivora**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 286.

♂. Differs from *hockingi* in the apex of fore wing being rectangular and not produced; the outer margin erect instead of oblique.

The larva is destructive to thatching grass, and forms a rough case of large pieces of the grass lougitudinally disposed.

*Hab.* Calcutta. *Exp.* 30 millim.

Vol. I, p. 303. *Diabasis* being preoccupied, read Genus **Stichobasis**, Kirby, Cat. Lep. Het. p. 519 (1892).

650. **Aprata mackwoodi**, Moore, belongs to the *Tineidæ*; veins 9, 10, not 8, 9, of fore wing are stalked.

## COSSIDÆ.

651 *a*. **Cossus fuscibasis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 287.

♀. Head, thorax, and abdomen dark brown, the last greyish towards extremity. Fore wing with the basal two-thirds brown, irrorated with fuscous; a paler patch between median nervure and vein 1, bounded by an irregular black postmedial line, highly angled at vein 4 and sending a streak inwards above vein 1; the outer area grey, striated and reticulated with black. Hind wing with the basal half fuscous; the outer area grey, striated and reticulated with fuscous.

*Hab.* N. Khyen Hills, Burma. *Exp.* 50 millim.

656. **Cossus stigmaticus.** Transfer to **Azygophleps.** Hind tibiæ with a minute terminal pair of spurs.

665 *a*. **Azygophleps nurella**, *Swinh. A. M. N. H.* (6) xiv, p. 440; *id. Trans. Ent. Soc.* 1895, pl. i, fig. 16.

♂. Fawn colour; frons fuscous; head reddish brown. Fore wing with the costal area silvery fuscous; the area in and below cell with a reddish tinge. Hind wiug paler.

*Hab.* Khásis. *Exp.* 52 millim.

## ARBELIDÆ.

Under 675. **Arbela tetraonis** insert (syn.) *Arbela phaga*, Swinh. A. M. N. H. (6) xiv, p. 440, and Trans. Ent. Soc. 1895, pl. i, fig. 2. Male with fuscous hind wings. Khásis.

## HEPIALIDÆ.

679 *a*. **Palpifer cærulescens**, *Swinh. A. M. N. H.* (6) xiv, p. 440.

♂. Head and thorax dark brown; abdomen fuscous. Fore wing with a round sexual patch at base of vein 1; dark purplish brown; an ochreous spot in cell; traces of three curved maculate

dark bands: submarginal and marginal series of ochreous specks curved and running to the base. Hind wing fuscous shot with brilliant metallic blue; an ochreous patch on outer margin below apex. Underside shot with blue.

*Hab.* Khásis. *Exp.* 26 millim.

679 *b*. **Palpifer minutus**, n. sp

Palpi porrect and almost straight. Head and thorax yellow-brown; abdomen fuscous. Fore wing yellow-brown, irrorated with dark brown; ante- and postmedial black and white spots on vein 1; an oblique series of five black and white spots from apex, with a marginal series below them round the outer angle to near middle of inner margin. Hind wing fuscous, the cilia yellow-brown.

*Hab.* Khásis. *Exp.* 18 millim. Type in B. M.

## CALLIDULIDÆ.

Vol. I, p. 325. Transfer **Herimba** to the **Thyrididæ** near **Hyperthyris**.

## DREPANULIDÆ.

Vol. I, p. 327. The genera **Deroca, Drapetodes,** and **Cilix** have the frenulum present, very slender in the male and hardly visible in the female.

698 *a*. **Euchera orciferaria**, *Wlk. Cat.* xx, p. 56.

Dark purplish brown; wings with some indistinct waved grey lines on basal area; a broad postmedial band of blue-grey suffusion with indistinct waved grey lines on it and waved outer edge. Fore wing with a fulvous spot on discocellulars; a submarginal blue-grey band from below apex expanding into a diffused patch at middle; a marginal line. Hind wing with blue-grey patch and marginal line at apex; an oblique blue-grey line from vein 2 to anal angle.

*Hab.* N. China; Tenasserim. *Exp.* 80 millim.

707 *a*. **Leucodrepana nudobia**, *Swinh. A. M. N. H.* (6) xiv, p. 435
*id. Trans. Ent. Soc.* 1895, pl. i, fig. 17.

Fore wing with vein 6 from angle of cell.

Dull yellowish brown. Fore wing with a black speck at each angle of cell; an ill-defined darker oblique postmedial band from below apex, with an obscure line beyond it which reaches apex;

a marginal darker band widening to inner margin, Hind wing with antemedial orange-yellow band widening to costa; traces of postmedial and submarginal lines. Underside pale.

*Hab.* Khásis. *Exp.* 32 millim.

## Genus EMODESA.

Emodesa, *Moore, Lep. Atk.* p. 255 (1888).

Type, *E. sinuosa*, Moore.

*Range.* Khásis; Burma; Borneo.

Palpi porrect, slender, and reaching just beyond the frons; proboscis present; antennæ with uniseriate branches; hind tibiæ with one pair of spurs. Fore wing with the apex produced and acute; vein 6 from angle of cell; 7 and 11 from end of areole. Hind wing with the frenulum absent; the outer margin somewhat angled at vein 4; 6 and 7 separating very near the base.

707 *b.* **Emodesa sinuosa,** *Moore, Lep. Atk.* p. 256, pl. 8, fig. 18 *C. & S.* no. 4004.

♂. White; palpi blackish; abdomen fuscous except the basal segment. Fore wing with patches of fuscous on costa; traces of three waved antemedial lines; two postmedial waved lines most prominent on disk; indistinct waved submarginal and almost marginal lines. Hind wing with waved antemedial, two medial, submarginal, and almost marginal lines.

Fig. 252.—*Emodesa sinuosa*, ♂. 1/1.

*Hab.* Khásis; Tenasserim; Borneo. *Exp.* 24 millim.

Vol. I, p. 333. Under **Drepana** insert *Thaleridia*, Moore, Lep. Atk. p. 266 (1888); and, for Sect. III., *Tridrepana*, Swinh. Trans. Ent. Soc. 1895, p. 3.

711 *a.* **Drepana mecasa,** *Swinh. A. M. N. H.* (6) xiv, p. 434.

Antennæ of male with long uniseriate branches.

Grey-brown; shafts of antennæ white; abdomen of male with a white dorsal band at middle. Fore wing with a black speck at each angle of cell; a diffused fuscous band from apex to middle of inner margin with indistinct lines on it; an indistinct submarginal series of specks and marginal band. Hind wing with three indistinct antemedial lines; a medial ochreous band with black specks on it at the two angles of cell, and bounded by three postmedial lines; an indistinct submarginal series of specks and marginal band.

*Hab.* Khásis. *Exp.* 38–42 millim.

712. Insert (syn.) *Thaleridia pruinosa*, Moore, Lep. Atk. p. 267; C. & S. no. 3752.

724 *a*. **Drepana leucosticta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 287; *Swinh. Trans. Ent. Soc.* 1895, p. 3.

♂. Dark purplish grey. Fore wing with a white postmedial line highly angled below the costa and running into a large white apical patch, the veins between it and the cell streaked with white; slender submarginal and marginal white lines. Hind wing with two medial white lines and two indistinct fine white lines close to the margin. Underside paler, with white apical patch to fore wing.

*Hab.* Sikhim; Khásis. *Exp.* 28 millim.

739. Insert (syn.) *Albara erpina*, Swinh. A. M. N. H. (6) xiv, p. 433.

## Genus PROBLEPSIDIS.

Problepsidis, *Hmpsn. Trans. Ent. Soc.* 1895, p. 287.

Type, *P. argyrialis*, Hmpsn.

*Range.* Sikhim; Nágas; Tenasserim.

Proboscis present; palpi minute; hind tibiæ with two pairs of spurs. Fore wing with the apex falcate; the outer margin angled at vein 4; vein 11 from the areole. Hind wing with the frenulum present; the outer margin slightly angled at vein 4.

SECT. I. Fore wing with vein 6 from the areole, 10 from beyond it.

A. *Antennæ of male fasciculate; hind wing with the inner margin not excised.*

741 *a*. **Problepsidis argyrialis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 287.

♂. Head, thorax, abdomen, and fore wing black-brown, the last with a few bluish silvery scales; traces of a waved double antemedial line and speck at end of cell; a postmedial line excurved beyond cell, with a brown band on its outer edge, followed by an irregular white band; a blue-grey irregularly dentate marginal band. Hind wing with the basal half fuscous; antemedial and medial lines represented by double angulate marks on inner margin; a broad postmedial white band; a somewhat maculate marginal fuscous-grey band.

*Hab.* Nágas. *Exp.* 22 millim.

B. *Antennæ of female bipectinate with short branches; hind wing with the inner margin excised towards anal angle.*

741 *b*. **Problepsidis albidescens**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 288.

♀. Greyish white. Fore wing with black speck at end of cell;

a postmedial black spot on costa; an oblique fine waved line from apex to inner margin beyond middle, with a black subapical mark on it; the marginal area browner, with indistinct submarginal and marginal brown lines. Hind wing with traces of oblique subbasal line; a postmedial black band obsolescent towards costa; a diffused submarginal line and fine marginal line. Underside with the costal half of fore wing suffused with fuscous; both wings with the veins brown; a broad blackish postmedial band and waved submarginal line sinuous towards costa of fore wing.

Fig. 253.—*Problepsidis albidescens*, ♀. $\frac{1}{1}$.

*Hab.* Sikhim. *Exp.* 42 millim.

SECT. II. Fore wing with vein 6 from upper angle of cell, 10 from end of areole.

741 *c*. **Problepsidis cupreogrisea**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 288.

♀. Leaden grey with a slight coppery tinge. Fore wing with a dark ferruginous basal patch in and below cell, extending along median nervure to the angle of cell; two minute white specks on discocellulars; the apex orange, with a black spot on it; an oblique line from below apex to middle of inner margin; a dark ferruginous marginal band traversed by a fine white curved submarginal line and fine orange marginal line. Hind wing with medial and marginal broad ferruginous bands, the latter traversed by fine pale submarginal and marginal lines.

*Hab.* Tenasserim. *Exp.* 25 millim.

## Genus STREPTOPERAS.

Streptoperas, *Hmpsn. Trans. Ent. Soc.* 1895, p. 289.

Type, *S. luteatum*, Hmpsn.

*Range.* Bengal.

Palpi slender, upturned, and hardly reaching vertex of head; proboscis present; antennæ of female thickened and flattened; frenulum present. Fore wing with the apex produced, recurved, and lying against outer margin; vein 3 from before angle of cell; 6 from above middle of discocellulars; 7, 8, 9 stalked and anastomosing with 10, which is given off from 11 to form the areole. Hind wing with the outer margin straight from apex to vein 3, where it is produced to a point, then excised to anal angle; veins 3, 4, 5 from close to angle of cell.

741 *d.* **Streptoperas luteatum,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 289.

♀. Yellow, suffused and irrorated with red-brown. Fore wing with indistinct antemedial line highly angled in the cell; two specks at end of cell; the inner medial area yellower and crossed by numerous very indistinct waved rufous lines; an indistinct waved submarginal line; some white submarginal specks. Hind wing with the subbasal area yellow, crossed by waved rufous lines; a black speck at end of cell; a double postmedial line, the area beyond it yellow, crossed by waved rufous lines; a more distinct submarginal waved line, and rufous marginal band from vein 3 to anal angle.

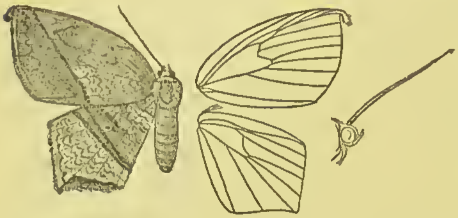

Fig. 254.—*Streptoperas luteatum,* ♀. 1/1.

*Hab.* N.E. Bengal. *Exp.* 44 millim.

747 *a.* **Phalacra edentata,** n. sp.

♀. Both wings with the outer margins excised below apex; fore wing with the outer margin angled at vein 4; the areole very long, with vein 11 given off near its extremity.

Pale ochreous brown, irrorated with fuscous scales. Fore wing with fuscous spot below lower angle of cell; indistinct postmedial and submarginal series of dark specks and a marginal series of dark striæ. Hind wing with oblique antemedial dark line; a dark speck at each angle of cell; indistinct postmedial and submarginal series of dark specks and some marginal specks.

*Hab.* Ceylon (*Pole*). *Exp.* 26 millim. Type in B. M.

## Genus **PHALACROPSIS.**

Phalacropsis, *Swinh. Trans. Ent. Soc.* 1895, p. 5.

Type, *P. carnosa*, Swinh.

*Range.* Khásis.

Differs from *Phalacra* in the outer margin of fore wing being slightly excised and crenulate from apex to vein 3, then very oblique; vein 10 given off from 11 and anastomosing with 8, 9 to form the areole. Hind wing with the costa evenly arched to the point at vein 6; 7 becoming coincident with 8.

747 *b.* **Phalacropsis carnosa,** *Swinh. Trans. Ent. Soc.* 1895, p. 5, pl. i, fig. 5.

♂. Fleshy grey. Fore wing with traces of numerous waved

dark lines; an ochreous fascia in end of cell, a black speck near the end and fuscous mark at upper angle; a postmedial series of black specks, excurved from vein 3 to 5, with obscure ochreous and rufous band beyond them; cilia ochreous and fuscous. Hind wing redder; a prominent black cell-speck; the waved lines before the postmedial series of specks more prominent; an indistinct sinuous submarginal line.

Fig. 255.
*Phalacropsis carnosa*, ♂. ½.

*Hab.* Khásis. *Exp.* 30 millim.

748 *a.* **Drapetodes croceago**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 290.

♂. Bright orange-yellow; head, thorax, and abdomen marked with orange. Fore wing with the veins orange; four slightly waved orange lines before the middle; the disk clouded with fuscous; two black spots at end of cell; two postmedial curved orange lines and two dentate submarginal lines. Hind wing with the disk slightly clouded with fuscous; a black speck at end of cell; medial, postmedial, and two crenulate submarginal lines. Underside pale.

*Hab.* Tenasserim. *Exp.* 30 millim.

759 *a.* **Oreta hyalodisca**, n. sp.

♂. Head, thorax, and abdomen red-brown and chestnut. Fore wing red-brown, variegated with yellow-brown on apical area; a large very irregular hyaline yellow patch in and below end of cell and on disk, running out to a point between veins 4, 5, and with a small spot at its inner edge; an oblique dark submarginal line; an oblique shade from apex; some yellow spots on margin, and some black suffusion near the angle. Hind wing chestnut, slightly variegated with yellow-brown; a medial dark line, with a minute yellow-ringed black ocellus beyond its middle; some yellow on the margin at the angle. Underside pale.

*Hab.* Khásis. *Exp.* 34 millim. Types in coll. Elwes and B. M.

759 *b.* **Oreta olga**, *Swinh. A. M. N. H.* (6) xiv, p. 434; *id. Trans. Ent. Soc.* 1895, pl i, fig. 14.

♂. Reddish brown; wings striated with fuscous. Fore wing with the outer margin slightly excised from apex to vein 4; traces of a curved antemedial band; a postmedial greyish line with rufous inner edge acutely angled on vein 5, and with dark suffusion between that point and the cell, then oblique and slightly sinuous to inner margin. Hind wing with the outer margin deeply excised between vein 2 and anal angle; a nearly straight grey medial line with rufous inner edge obsolescent on costal area; a diffused dark postmedial patch between veins 3

and 6. Underside yellow, with the striæ prominent and some ferruginous suffusion on outer area.

*Hab.* Khásis. *Exp.* 40 millim.

760. **Oreta moorei,** *Dyar, Ent. News,* 1894, p. 227; *marginata* being preoccupied.

Vol. I, p. 351. Transfer **Camptochilus** to the **Thyrididæ** near **Camadena.**

## THYRIDIDÆ.

773. The two forms described as sexes are distinct species:— **Rhodoneura polygraphalis,** Wlk. Cat. xxxiv, p. 1240=*marmorealis,* Moore=*denticulosa,* Moore, is a pure white form; whilst **R. bastialis,** Wlk., is a much greyer species, thickly striated with brown-pink; the range of the latter is from W. and S. Africa to India and Ceylon, of the former from India and Ceylon to N. Australia and the Solomons.

773 *b.* **Rhodoneura argentalis,** *Wlk. Cat.* xxxiv, p. 1522.

Siculodes argentalis, *var.* tuberosalis, *Warr. A. M. N. H.* (6) xvii, p. 212.

White; the head and collar bronze; wings slightly striated with bronze. Fore wing with the basal area suffused with bronze, its outer edge oblique; a large oval postmedial bronze patch between veins 7 and 1; a subapical black and white ocellus with a yellow lunule on its upper edge; the apical area with prominent striæ. Hind wing with a dark speck at apex and another above anal angle; submarginal and marginal series of bronze striæ. Underside of fore wing with golden metallic scales along subcostal nervure and nervules.

*Hab.* Bhután; Khásis; Ceylon; Java. *Exp.* 26 millim.

779. Insert (syn.) *Pharambara obliquistrigalis,* Warr. A. M. N. H. (6) xvii, p. 210.

780 *a.* **Rhodoneura atristrigulalis,** n. sp.

♂. Ferruginous; collar browner; wings thickly striated with ferruginous. Fore wing with the base darker; an ill-defined outwardly-oblique medial line; a cupreous-brown patch beyond cell conjoined by a band to costa and by double lines to inner margin; an irregular line ending at outer angle and connected by spurs with the discal patch and outer margin; a line across apical area forking towards costa. Hind wing with subbasal line; a discocellular spot with reticulated lines between it and inner margin; a submarginal line connected by spurs with outer margin and the medial lines. Underside of fore wing with black and white streaks in cell and beyond upper angle.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 32 millim.

781 *a*. **Rhodoneura hebra**, *Swinh. A. M. N. H.* (6) xv, p. 18.

♂. Dark chestnut variegated with grey; wings with indistinct dark reticulations and silvery-grey spots arranged in ill-defined maculate bands. Underside of fore wing with the costa striated with black; a ferruginous subcostal fascia; the cell and veins beyond it with fine black streaks; the retinaculum metallic; three ferruginous bands from cell to inner margin, and diffused ferruginous patch on middle of outer area; hind wing suffused with ferruginous.

*Hab.* Khásis. *Exp.* 26 millim.

786. *R. vinosa* = **Rhodoneura tetragonata**, *Wlk. Journ. Linn. Soc.* vii, p. 78; which has precedence.

Insert (syn.) *Rhodoneura jubralis*, Swinh. A. M. N. H. (6) xvi, p. 299.

791. Insert (syn.) *Rhodoneura pralanis*, Swinh. A. M. N. H. (6) xvi, p. 298. Khásis.

792 *a*. **Rhodoneura melanostigmalis**, *Swinh. A. M. N. H.* (6) xvi, p. 298.

♀. Pale ferruginous suffused with darker dull ferruginous. Fore wing reticulated with ferruginous lines, which form patches almost covering the basal area; some black quadrate spots on costa conjoined at middle to a large black spot beyond end of cell; a submarginal black speck above vein 5; a marginal series of specks. Hind wing reticulated with ferruginous, and wholly suffused with dull ferruginous except at base which is pale. Underside similar.

*Hab.* Khásis. *Exp.* 24 millim.

792 *b*. **Rhodoneura semiperforata**, *Warr. A. M. N. H.* (6) xvii, p. 211.

♂. Ferruginous. Fore wing elongate and narrow, with antemedial and medial short pale bands from costa, and some specks below cell; the outer area except the costa semihyaline, with numerous ferruginous striæ; a band across apical area. Hind wing pale ferruginous with darker striæ; a subbasal band from cell to inner margin, and conjoined patches beyond the cell and below lower angle. Underside of fore wing with longitudinal short black streaks on pale costal spots; a bright ferruginous fascia below costa; black and white streaks in cell and on subcostals, and a very prominent hooked black mark beyond cell.

*Hab.* Khásis. *Exp.* 28 millim.

794 *a*. **Rhodoneura thiastoralis**, *Wlk. Cat.* xix, p. 893.

Rhodoneura rhodosticta, *Swinh. A. M. N. H.* (6) xvi, p. 298.

Dark red-brown with a purplish tinge; wings evenly striated with black. Fore wing with bright pink spots on the costa; traces of five or six dark lines. Hind wing with discocellular black speck and traces of five or six lines. Underside of fore

wing with bright chestnut suffusion in, below, and beyond upper angle of cell; a streak of jet-black and brilliant metallic scales on end of median nervure; the apex chestnut. Hind wing with the base chestnut.

*Hab.* Khásis; ? Brazil. *Exp.* 16 millim.

795 *a.* **Rhodoneura decoratalis,** *Warr. A. M. N. H.* (6) xvii, p. 209.

♂. Head and thorax fuscous brown; abdomen paler. Fore wing with the basal half of costal area blackish, the outer half ferruginous, the costa with white specks, two beyond middle conjoined into a larger spot; the inner area whitish, the area between cell and outer margin grey, with a submarginal black spot above middle. Hind wing whitish suffused with grey, especially between the cell and apex; rufous spots at lower angle of cell and between it and inner margin; a marginal brown band. Underside of fore wing with bright ferruginous on outer half of costa; black streaks in and beyond cell; a brown band from discocellulars to inner margin; a curved brown band across apical area; oblique black striæ on margin.

*Hab.* Khásis. *Exp.* 16 millim.

796. Insert (syn.) *Pharambara parcipunctalis,* Warr. A. M. N. H. (6) xvii, p. 210. Khásis. *Exp.* 26 millim.

797 *a.* **Rhodoneura intimalis,** *Moore, Lep. Atk.* p. 213; *C. & S.* no. 4381.
Pharambara compunctalis, *Warr. A. M. N. H.* (6) xvii, p. 208.
Pharambara ulterior, *Warr. A. M. N. H.* (6) xvii, p. 212.

Very pale rufous irrorated with fuscous. Fore wing in the form *ulterior* with indistinct antemedial, medial, and postmedial bands of quadrate spots; a darker spot beyond discocellulars almost touching a triangular patch on the costa; the apical area suffused with fuscous; an inverted V-shaped mark above middle of outer area; two dark marginal specks above outer angle. Hind wing with the base dark; a prominent dark medial band and band from vein 3 to anal angle. Underside with the markings more prominent and rufous; fore wing with four triangular costal spots; antemedial, medial, and postmedial bands of obliquely placed quadrate patches, the medial conjoined to a dark-centred discocellular spot, the postmedial to the inverted V; hind wing with black-centred discocellular spot and medial and postmedial bands.

The rarer form *intimalis* has the dark markings and bands of upper and under sides very much reduced or almost absent.

*Hab.* Khásis; Calcutta; Ceylon; Java. *Exp.* 16 millim.

798 *a.* **Rhodoneura setifera,** *Swinh. A. M. N. H.* (6) xvi, p. 298.

♂. Mid tibiæ fringed on outer side with spinous hair; hind tibiæ with a brush of long hair from base. Head, thorax, and abdomen dark red-brown suffused with grey; wings pale red-

brown, thickly suffused and reticulated with dark red-brown and irrorated with grey; an oblique dark brown band from below costa of fore wing, narrowing to middle of inner margin of hind wing. Underside suffused with glistening grey, the reticulations more prominent; the band only developed on fore wing and with a less prominent band before it.

*Hab.* Khásis. *Exp.* 22 millim.

D. *Wings long, the apex produced; hind wing with the outer margin straight.*

800 *a*. **Rhodoneura tritropha**, *Swinh. A. M. N. H.* (6) xv, p. 17.

♂. Ferruginous; head and metathorax dark brown. Fore wing with faint dark reticulations; the costa pale, with minute black specks. Hind wing with oblique black subbasal band; an oblique chestnut postmedial band, with grey band on its outer edge expanding to anal angle, where there is a large deep black spot; the margin chestnut; both wings with dark speck near middle of inner margin, and fore wing with a dark streak before middle. Underside of fore wing with bright chestnut antemedial and subapical patches; dark chestnut patches surrounded with grey in and beyond end of cell, and two bands from cell to above inner margin; a marginal white band irrorated with fuscous from below apex to vein 5; hind wing with chestnut fascia on costa followed by two spots; a dark subbasal band from cell to inner margin; a postmedial dark band on whitish suffusion; the margin dark, and a black spot at anal angle.

*Hab.* Khásis. *Exp.* 32 millim.

802. **Hypolamprus striatalis**; omit *Pharambara intimalis*, Moore (see 797 *a*).

804 *a*. **Hypolamprus fimbriatus**, *Warr. A. M. N. H.* (6) xvii, p. 207.

Fulvous yellow; collar red-brown with a leaden tinge; wings with dark striæ. Fore wing with a leaden tinge on costal area, the apical part redder; a hoop-shaped dark mark from discocellulars to inner margin beyond middle and outer angle; a prominent dark line across apical area forking below costa, the outer branch curving round and becoming the marginal line. Hind wing with subbasal, medial, irregular postmedial, and a prominent marginal line. Underside of fore wing with ferruginous in cell and below costa; black streaks on subcostal nervure and nervules and white subapical spot.

*Hab.* Sikhim; Khásis. *Exp.* 24 millim.

804 *b*. **Hypolamprus stylophorus**, *Swinh. A. M. N. H.* (6) xv, p. 17.

Head, thorax, and abdomen bright or dark red-brown; wings with the basal two-thirds bright or dark red-brown. Fore wing with medial and postmedial dark bands from cell to inner margin

on the dark area. Hind wing with the dark area terminating just beyond the middle and with rounded outer edge. Underside of fore wing with some brilliant metallic scales in and beyond the cell.

*Hab.* Khásis; Ceylon. *Exp.* 18 millim.

812. Insert (syn.) *Eutelia siccifolia*, Moore, P. Z. S. 1881, p. 375; C. & S. no. 2206.

## LIMACODIDÆ.

822 *a*. **Macroplectra semiaurantia**, n. sp.

Antennæ of male very much thickened and flattened.

Head and thorax orange irrorated with brown; abdomen dark brown. Fore wing with the basal half fiery orange suffused towards costa with brown, with a minutely dentate dark antemedial line from cell to inner margin, its outer edge minutely dentate; the marginal area suffused with orange, forming an ill-defined patch on costa. Hind wing dark brown.

*Hab.* Khásis. *Exp.* 20 millim. Types in coll. Elwes and B. M.

858 *a*. **Miresa canescens**, n. sp.

♂. Head, thorax, and abdomen bright rufous. Fore wing silvery grey with a slight rufous tinge, and irrorated with black scales; an ill-defined rufous line from costa towards apex to inner margin before middle; an ill-defined curved submarginal rufous line from costa to vein 3; costa and cilia rufous. Hind wing very pale yellow; the cilia rufous.

*Hab.* Ceylon (*Green*). *Exp.* 32 millim. Type in B. M.

Genus **MICROLIMAX**, nov.

Type, *M. pallidipuncta*, Hmpsn.

*Range.* Ceylon.

Palpi minute and porrect; antennæ of male bipectinate, with long branches diminishing to apex. Fore wing short and very broad; the apex rounded; all the veins from cell, vein 8 running to apex. Hind wing with all the veins from cell; 8 anastomosing with the cell near base; tibiæ without spurs.

Fig. 256.—*Microlimax pallidipuncta*, ♂. $\frac{3}{2}$.

858 *b*. **Microlimax pallidipuncta**, n. sp.

♂. Dark brown suffused with grey. Fore wing irrorated with bright grey scales and mottled with grey; a white band between veins 2 and 1 just beyond the middle.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 10 millim. Type in B. M.

869 should stand as **Parasa hampsoni**, *Dyar, Ent. News*, 1894 p. 227; *viridis* being preoccupied.

870 *a*. **Parasa chlorozonata**, n. sp.

♂. Rufous; vertex of head and thorax bright green. Fore wing with medial green band from subcostals to inner margin, contracted at median nervure. Hind wing with the basal two-thirds yellowish white, the outer third pale rufous.
*Hab.* Ceylon (*Pole*). *Exp.* 24 millim. Type in B. M.

878 *a*. **Ceratonema ferrugineum**, n. sp.

♂. Rufous; head yellow-brown. Fore wing glossy, with a diffused curved postmedial band of grey scales extremely ill-defined and diffused to outer margin below apex. Hind wing fuscous brown with a grey gloss.
*Hab.* Khásis. *Exp.* 24 millim. Type in coll. Elwes.

879 *a*. **Ceratonema rufibasale**, n. sp.

♂. Head ochreous; thorax and abdomen bright rufous. Fore wing with the basal half bright rufous, bounded from lower angle of cell to inner margin by a silvery-white line slightly angled on veins 3 and 1 *c*; outer area brown, paler towards margin. Hind wing brown with a yellowish gloss.
*Hab.* Khásis. *Exp.* 20 millim. Types in coll. Elwes and B. M.

880 *a*. **Ceratonema pallidinota**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 290.

♂. Head, thorax, and fore wing dark red-brown with slight purplish suffusion; abdomen, hind wing, and underside paler; hind tibiæ with thick tufts of dark purplish hair. Fore wing with a large pale patch beyond upper angle of cell and a redder patch on outer half of inner area.
*Hab.* Sikhim. *Exp.* 22 millim.

888. Insert (syn.) *Altha rufescens*, Swinh. A. M. N. H. (6) xii, p. 211; proposed for the specimen from Ceylon described in text.

891 *a*. **Narosa uniformis**, *Swinh. Trans. Ent. Soc.* 1895, p. 7.

♀. Antennæ minutely serrate. Uniform pale rufous; the thorax and fore wing with slight white suffusion, the latter with an oblique series of postmedial dark specks on the veins, terminating as dark tips to the scales of the tuft at middle of inner margin. Hind wing with the cilia dark near anal angle.
*Hab.* Khásis. *Exp.* 34 millim.

892 *a*. **Narosa argentipuncta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 290

♂. White tinged with fulvous. Fore wing with a tuft of fulvous scales at base; some diffused fulvous along subcostal

nervure and at end of cell; an oblique diffused fulvous fascia from costa beyond middle to outer margin below apex; a silvery-white spot at lower angle of cell; some dark specks on the margin.
*Hab.* Ceylon. *Exp.* 28 millim.

892 *b.* **Narosa erminea,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 291.

♂. White; abdomen slightly tinged with fuscous. Fore wing with a large fuscous patch on disk, with dark specks on its outer edge, conjoined to a fulvous and fuscous apical patch and to a large fuscous medial patch on inner area, with dark marks on it and a fulvous spot on its outer edge. Hind wing slightly tinged with fuscous.
*Hab.* Thayetmyo, Burma. *Exp.* 18 millim.

## Genus MONEMA.

Monema, *Wlk. Cat.* v, p. 1112 (1855).

Type, *M. flavescens*, Wlk., from Japan and China.
*Range.* Japan; China; Bhután.

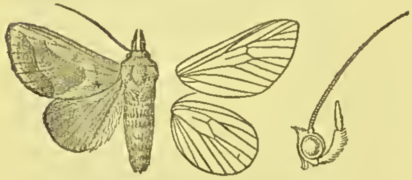
Fig. 257.—*Monema coralina*, ♂. $\frac{1}{1}$.

Palpi upturned far in front of frons, the 2nd joint reaching above vertex of head and somewhat smoothly scaled, the 3rd long; antennæ of male simple; tibiæ and tarsi hairy, the spurs well developed. Fore wing with the apex produced upwards; veins 7, 8, 9, 10 stalked; 11 curved and running close along 12. Hind wing with veins 6, 7 stalked.

893 *a.* **Monema coralina,** *Dudgeon, Hmpsn. Trans. Ent. Soc.* 1895, p. 290.

♂. Head, thorax, and abdomen yellowish white; palpi black-brown; thorax below and legs dark red-brown. Fore wing with the basal half yellowish white; a brown spot on inner area before middle; the outer half suffused with delicate pink; very indistinct oblique pink postmedial and submarginal lines, obsolete towards apex and inner margin. Hind wing with the inner half of wing suffused with delicate pink. Underside pink.
*Hab.* Bhután. *Exp.* 34 millim.

# LASIOCAMPIDÆ.

911 *a.* **Metanastria rubra,** n. sp.

♂. Dark pinkish red-brown; palpi black; vertex of head and thorax ochreous; shaft of antennæ marked with black. Fore wing irrorated with ochreous scales; a triangular blackish shade from

near base of median nervure to outer margin at apex and outer angle, leaving the costal and inner areas and vein 5 red; ill-defined ochreous ante- and postmedial bands almost obsolete, except on costal and inner areas; an obscure dark discocellular spot. Hind wing more brick-red, with the margin dark.

*Hab.* Khásis. *Exp.* 74 millim. Type in B. M.

## Genus **ODONTOCRASPIS.**

Odontocraspis, *Swinh. A. M. N. H.* (6) xiv, p. 439 (1894).

Type, *O. hasora*, Swinh.

*Range.* Khásis.

Differs from *Bharetta* in the antennæ being shorter; the mid and hind tibiæ without spurs. Fore wing with the outer margin produced to a hook at vein 6 and slight points at the other veins,

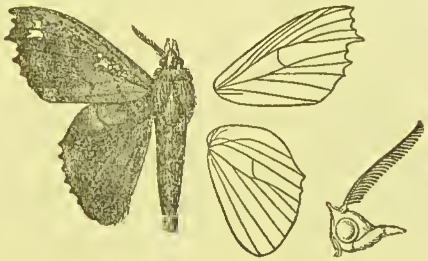

Fig. 258.—*Odontocraspis hasora*, ♂. $\frac{1}{1}$.

and excised below the apex and the hook. Hind wing much longer; the costa very highly arched; the outer margin crenulate.

925 *a.* **Odontocraspis hasora,** *Swinh. A. M. N. H.* (6) xiv, p. 439; *id. Trans. Ent. Soc.* 1895, pl. i, fig. 11.

♂. Dark red-brown. Fore wing with fiery orange specks and spot in end of cell, two ochreous specks at end and spots beyond the end; some black suffusion below the costa towards apex; a quadrate subapical hyaline speck with triangular spot below it. Hind wing with the costal area reddish; underside with a broad postmedial bluish-white band with diffused black edges.

*Hab.* Khásis. *Exp.* 46 millim.

940 *a.* **Lenodora pallidochrea,** n. sp.

♂. Pale ochreous brown. Fore wing with two obscure fuscous discocellular specks; a curved pale rufous line from just below apex to middle of inner margin, with a curved fuscous highly dentate line beyond it, appearing as a double series of specks on the veins. Hind wing whitish.

*Hab.* Khásis. *Exp.* 44 millim. Type in coll. Elwes.

949. **Odonestis lineata.** Insert (syn.) *Metanastria fuscomarginata.* Swinh. Trans. Ent. Soc. 1895, p. 27, pl. i fig. 7, and transfer to **Metanastria**, Sect. III.

## LYMANTRIIDÆ.

960 *a*. **Orgyia nucula**, *Swinh. A. M. N. H.* (6) xiv, p. 435; *id. Trans. Ent. Soc.* 1895, pl. i, fig. 15.

♂. Fulvous brown irrorated with black. Fore wing with traces of subbasal pale line, with a bright chestnut patch beyond it below the cell, bounded by the antemedial pale line which is angled in the cell; a minutely crenulate double postmedial line angled inwards below vein 2 and with bright chestnut patches beyond it in the interspaces; some black and white suffusion at apex. Hind wing fuscous black, with the cilia ochreous. Abdomen with the dorsal tufts very large.

*Hab.* Khásis; Shan States. *Exp.* 26 millim.

980. **Lælia umbrina.** A race from Simla is yellowish brown with the spots obsolete; and a race from Travancore is yellowish brown: female ochreous.

983. Omit *Ptilomacra juvenis*, Wlk.

983 *a*. **Lælia juvenis**, *Wlk. Cat.* v, p. 1099; *C. & S.* no. 1336.

♂. Differs from *testacea* in being browner and without rufous tinge. Fore wing considerably longer and more produced at apex; a dark fascia below median nervure from base to vein 4, and another on inner margin; no blackish subapical patch. Hind wing fuscous.

*Hab.* Ceylon. *Exp.* 42 millim.

992. Insert (syn.) *Pantana luteiceps*, Swinh. A. M. N. H. (6) xvii, p. 361.

### Genus MALACHITIS.

Malachitis, *Hmpsn. Trans. Ent. Soc.* 1895, p. 291.

Type, *M. melanochlora*, Hmpsn.
*Range.* Bhután.

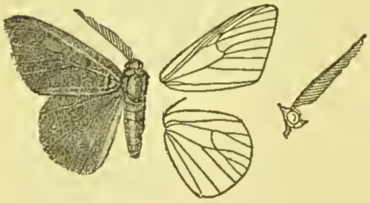

Fig. 259.
*Malachitis melanochlora*, ♂. 1/1.

Palpi porrect, reaching just beyond the frons; antennæ of male strongly bipectinated. Fore wing with the apex produced and outer margin oblique; vein 9 given off from 10 and anastomosing with 7 and 8 to form the areole. Hind wing with the inner margin long; veins 3, 4 stalked, 5 from lower angle of cell; 6, 7 stalked.

996 *a*. **Malachitis melanochlora**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 291.

♂. Black-brown; head and thorax slightly variegated with green. Fore wing with a basal green patch; a green streak on base of inner margin, and a green fascia beyond upper angle of cell. Hind wing browner.

*Hab.* Bhután. *Exp.* 36 millim.

1000 *a*. **Dasychira postfusca,** *Swinh. Trans. Ent. Soc.* 1895, p. 9, pl. i, fig. 12.

♂. White; antennæ with the branches rufous; abdomen suffused with fulvous above. Fore wing irrorated with fuscous; an irregular dark-edged antemedial spot on costa; an incurved irregularly dentate medial line; a more prominent dentate postmedial line, oblique from costa to vein 6, where it is highly angled, then incurved; an irregularly dentate submarginal line. Hind wing fuscous. Underside suffused with fuscous; hind wing with cell-spot and curved postmedial line.

*Hab.* Khásis. *Exp.* 46 millim.

1005. **Stauropus** (*Dasychira*) **perdix**=268. *Stauropus fasciatus*, and has priority.

1014 *a*. **Dasychira orimba,** *Swinh. A. M. N. H.* (6) xiv, p. 435.

♂. Uniform olive-brown. Fore wing with a patch of ochreous and black scales at base below median nervure; an obscure large reniform stigma; a postmedial dentate line bent outwards from costa to vein 6, then inwardly oblique and reaching inner margin before middle; two obscure dentate marks beyond it below costa and an indistinct dentate submarginal line. Hind wing fuscous.

♀ with the head and thorax greyer; the fore wing browner; the postmedial line very highly and irregularly dentate, with another similar but mere diffused line beyond it from apex conjoined to it towards inner margin.

*Hab.* Khásis. *Exp.*, ♂ 36, ♀ 48 millim.

1014 *b*. **Dasychira angulata,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 292.

Fore wing with the outer margin excised below apex and angled at vein 4.

♂. Brownish grey irrorated with brown. Fore wing with three black specks on discocellulars and a marginal series; abdomen and inner margin of hind wing suffused with fuscous; a dark lunule at end of cell and marginal series of ill-defined dark specks. Underside white, with lunules at end of cell of each wing and a marginal series of black specks; hind wing with some dark postmedial marks.

*Hab.* Sikhim. *Exp.* 46 millim.

1018 *a*. **Mardara ruficeps,** n. sp.

♀. Fuscous brown; head and collar rufous; anal tuft greyish. Fore wing with indistinct pale antemedial line; a dark discocellular speck; a crenulate pale postmedial line slightly bent outwards at vein 5; the marginal area and cilia of both wings tinged with yellow.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 30 millim. Type in B. M.

1022. Insert (syn.) *Cyclidia decolorata*, Wlk. Char. Undescr. Het. p. 96; C. & S. no. 3121.

♀. Very much paler; the postmedial line of fore wing some-

times prominent and continued to costa; the apex sometimes suffused with fuscous. Hind wing whitish. *Exp.* 82 millim.

1041 *a.* **Lymantria plumbalis,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 292.

♂. Head, thorax, and fore wing leaden grey; thorax spotted with black; fore femora crimson; abdomen crimson, with a dorsal series of black spots and black anal tuft. Fore wing with indistinct lunulate subbasal and antemedial lines, two medial lines which become coincident at median nervure, postmedial and submarginal lines arising from black spots on the costa; a black lunule at end of cell; a margiual series of black spots. Hind wing dark fuscous; cilia of both wings white except at apex.

*Hab.* Tilin Yaw, Burma. *Exp.* 60 millim.

1051 *a.* **Topomesa discolor,** n. sp.

♂. Differs from *subinanis* in being very pale reddish ochreous; the thorax and base of fore wing suffused with white; the latter irrorated with silvery scales; the costa rufous; a diffused dark mark on upper discocellulars instead of the spot beyond lower angle of cell; the outer margin much more excised below apex aud angled at vein 4.

*Hab.* Ceylon (*Pole*). *Exp.* 36 millim. Type in B. M.

The genus has vein 10 arising free, then slightly anastomosing with 7, 8, 9, *not* stalked with them.

1052 *a.* **Dactylorhyncha luteifascia,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 292.

Palpi uot reaching far beyond the frons.

♂. Black-brown. Fore wing with a narrow orange-yellow fascia on costa and broad fascia on inner margin; very indistinct double ante- and postmedial lines. Underside paler.

*Hab.* Pauk Yaw, Burma. *Exp.* 28 millim.

1084. Insert (syn.) *Adlullia stirasta*, Swinh. A. M. N. H. (6) xii, p. 214.

The form *stirasta* from the Shan States has the basal purplish patch of fore wing reduced to a spot.

1087 *a.* **Euproctis oreosaura,** *Swinh. A. M. N. H.* (6) xiv, p. 435.

♀. Differs from *varia* in the whole fore wing being brown irrorated with black, except the costal area which is yellow, and expands into a large patch in and beyond end of cell with the black discocellular spot on it; the marginal area yellow, iuterrupted at middle by a tooth from the brown area. Hind wing fuscous brown; the marginal area yellow. Thorax brown, except the collar.

*Hab.* Khásis. *Exp.* 62 millim.

1088. *Euproctis flavimaculata* is a **Mardara**=1017. **Mardara irrorata.**

1105 *a.* **Euproctis renifera,** *Swinh. Trans. Ent. Soc.* 1895, p. 12.

♀. Rufous grey-brown irrorated with fuscous; aual tuft

fulvous. Fore wing with prominent discocellular black lunule; an indistinct highly sinuous submarginal line; two or three black spots on the margin below apex. Hind wing more fuscous; cilia of both wings yellow.

*Hab.* Khási̇s. *Exp.* 32 millim.

1106 *a.* **Porthesia stigmatifera**, n. sp.

♀. Brownish ochreous irrorated with fuscous. Fore wing thickly irrorated with fuscous, except the inner medial area; traces of a rufous antemedial band and patch in cell; a more prominent blackish reniform stigma; some ill-defined postmedial and submarginal fuscous and rufous patches forming traces of bands. Hind wing with traces of medial and postmedial lines.

*Hab.* Bhután (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

1116. Insert **Leucoma saturnioides**, *Snell. Tijd. v. Ent.* xxii, p. 105, pl. 8, fig. 7. Borneo; Sumatra; Java; Celebes; Australia —which has priority.

1124. **Dendrophleps semihyalina.** ♀. Fore wing more rounded; veins 4, 5 from cell. Hind wing with no veinlets from vein 1 *a*; veins 4, 5 from cell. Pure white; the palpi, fore legs, and mid and hind tarsi bright orange. *Exp.* 48 millim.

Vol. I, p. 496. **Anagnia** will stand, *Peridrome* being preoccupied.

1134. Insert (syn.) *Neochera bhawana*, Moore, Lep. E.I. C. p. 295, pl. vii *a*, fig. 4.

The form *bhawana* from Burma and Java has no white patch on hind wing, which is wholly greenish fuscous with the veins white.

1150 *a.* **Hypsa chloropyga**, *Wlk. Cat.* ii, p. 455.
Hypsa analis, *Wlk. Cat.* vii, p. 1677.

Orange-yellow; palpi fuscous; patagia with a black spot; abdomen ringed with blue-back, the two last segments blue-black. Fore wing with black spots at base of costa and median nervure; red-brown spots in middle and end of cell and beyond end of cell, also below middle and end of cell.

*Hab.* Sikhim; Ceram; Australia. *Exp.* 60 millim.

## ARCTIIDÆ.

1201. Insert **Arctia intercalaris**, *Eversm. Bull. Soc. Nat. Mosc.* 1843, iii, p. 544, pl. 10, fig. 1 *a*, *b*; which has priority.

1203 *a.* **Arctia bretaudiaui**, *Oberth. Ét. Ent.* xx, p. 54, pl. x, figs. 179, 180.

♂. Differs from *perornata* in all the dark markings being reduced; fore wing with a fascia below median nervure from base

to end of cell; the submarginal band broken, the marginal very narrow. Hind wing with the discocellular lunule separate from the postmedial band; no marginal band.

♀ with the wings aborted and much reduced.

*Hab.* Sikhim, 12,000 feet. *Exp.* 52 millim.

Vol. II, p. 32. **Sebastia**, *Kirby, Cat. Lep. Het.* p. 383 (1892), has priority over *Moorea.*

1254 proves, as was expected, to belong to a distinct genus:—

## Genus CARCINOPYGA.

Carcinopyga, *Feld. Reis. Nov., Erkl. Taf.* lxxv–cvii, p. 2 (1874).

Type, *C. lichenigera*, Feld.

*Range.* Ladákh.

♀. Palpi porrect and reaching just beyond the frons; antennæ simple, hind tibiæ with two pairs of small spurs. Fore wing broad; vein 3 from before angle of cell; 4, 5 from angle; 6 from

Fig. 260.—*Carcinopyga lichenigera*, ♀. $\frac{1}{1}$.

upper angle; 9 and 10 anastomosing with 7, 8 to form the areole and emitted together. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

1281 *a*. **Cyana alborosea**, Wlk. = *quadrinotata*, Wlk. = *pallens*, Butl., is a distinct species, with no black edges to the bands of fore wing; male with no sexual patch on hind wing; female with veins 6, 7 stalked.

*Hab.* China; Sikhim; Khásis; Moulmein; Sumatra. *Exp.* 24 millim.

1284 *a*. **Cyana dudgeoni**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 293.

Female with veins 4, 5 of fore wing stalked; 6 absent; one black spot. Male with no costal tuft or lobe and three black spots on fore wing; hind wing with veins 6, 7 stalked.

Differs from *peregrina* in the palpi being white and fuscous. Fore wing without the black edges to the ante- and postmedial crimson bands. Underside white in male, crimson in female.

*Hab.* Sikhim. *Exp.*, ♂ 26, ♀ 30 millim.

1285 *a*. **Cyana javanica**, *Butl. Trans. Ent. Soc.* 1877, p. 338.

Fore wing of male with two black spots, of female with one.

♂. Differs from *peregrina* in the fore wing having the subbasal line irregularly waved; the antemedial line more oblique, excurved in the cell and emitting a streak to near the two black spots; the postmedial line with its costal half oblique, then waved, a red spot beyond it on costa; the marginal band not extending round the apex and with its inner edge dentate.

♀ with the ante- and postmedial bands highly sinuous and with prominent black eyes.

The form from Shan States has the red bands of fore wing broader, with no black on their edges; the hind wing more crimson.

*Hab.* Shan States; Java. *Exp.*, ♂ 36, ♀ 42 millim.

Genus **BAROA**, nov.

Type, *B. punctivaga*, Wlk., from Java.

*Range.* Sikhim; Khásis; Java.

Differs from *Agrisius* in the areole of fore wing being large and vein 10 given off from it; from *Macrobrochis* in vein 3 of each wing arising from angle of cell; vein 6 of fore wing from upper angle; 11 not anastomosing with 12.

1307 *a*. **Baroa vatala**, *Swinh. A. M. N. H.* (6) xiv, p. 436; *id. Trans. Ent. Soc.* 1895, pl. i, fig. 18.

♂. Ochreous white with a slight fuscous tinge; palpi with the 3rd joint black; collar, tegulæ, pro-, meso-, and metathorax each with a black spot. Fore wing with two black specks near base below costa; four antemedial specks, one at end of cell; a series of eight postmedial specks. Hind wing with postmedial series of specks.

Fig. 261.—*Baroa vatala*, ♂. 1/1.

*Hab.* Sikhim; Khásis. *Exp.* 36 millim.

Genus **Macrobrochis**.—Sect. I. B. *Antennæ of male with short branches dilated distally.*

1308 *a*. **Macrobrochis semirufa**, n. sp.

♂. Differs from *metaxantha* in the head and collar being dark red-brown; abdomen orange-brown suffused with fuscous above; fore wing darker, the costal and outer areas orange-brown below; hind wing uniform orange-brown.

*Hab.* Khásis. *Exp.* 54 millim. Type in coll. Elwes.

1308 *b*. **Macrobrochis metaxantha**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 292.

♀. Fuscous brown; frons, collar, and abdomen orange. Fore

wing with vein 6 from the areole; uniform fuscous brown. Hind wing orange; a fuscous-black marginal band, broad at costa, narrowing to anal angle. Underside with the thorax and basal half of costa of fore wing orange.

*Hab.* Bhután. *Exp.* 60 millim.

1317 *a.* **Gnophria collitoides,** *Butl. Cist. Ent.* iii, p. 115.

Fuscous; collar orange or fiery red; legs and abdomen below yellow. Fore wing with orange costal fascia from near base to near apex. Hind wing paler.

The Japanese form is darker than the Sikhim form, and has the costal fascia broader. In the single male the head is yellow.

*Hab.* Japan; Yatong, Sikhim, 13,000 feet. *Exp.*, ♂ 36–40, ♀ 36–48 millim.

## Genus LOBOCRASPIS.

Lobocraspis, *Hmpsn. Trans. Ent. Soc.* 1895, p. 293.

Type, *L. griseifusa*, Hmpsn.

*Range.* Burma.

Palpi upturned and reaching vertex of head; antennæ of male minutely ciliated; fore tibiæ of male thickly fringed with hair; mid and hind tibiæ without spurs and with immense tufts of long hair; the proximal joints of tarsi fringed with hair. Fore wing long and narrow; the costa nearly straight; the outer margin erect from apex to vein 4, where it is angled, then very oblique; the inner margin with a large lobe before the middle; vein 3 from before angle of cell; 6 from below upper angle; 7 from the angle; 8, 9, 10 stalked; 11 free. Hind wing with the apex rounded; veins 3, 4, 5 from close to angle of cell; 6, 7 from upper angle; male with the inner area clothed with long hair.

1322 *a.* **Lobocraspis griseifusa,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 293.

Tawny ochreous; thorax and abdomen suffused with greyish fuscous; hind tibiæ of male with the tufts fuscous, mid tibiæ with them tipped with fuscous. Fore wing with greyish-fuscous specks on costal area, which are developed into obscure spots in and beyond the cell; the whole inner area suffused with greyish fuscous, except a tawny spot on the lobe; a dark spot on outer margin below apex. Hind wing fuscous; the cell

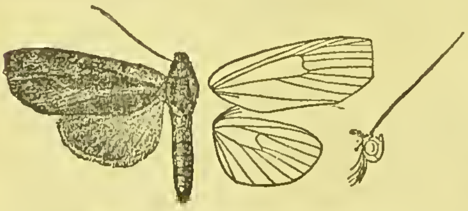

Fig. 262.—*Lobocraspis griseifusa*, ♀. ½.

whitish; the margin tinged with ochreous; male with the inner area below the cell and vein 5 suffused with fuscous. Underside ochreous; fore wing with the cell suffused with fuscous, with a pale spot in it and another on discocellulars.

*Hab.* Yaw, Burma; Dawnat Range, Tenasserim. *Exp.* 44 millim.

1334 *a*. **Prabhasa cana**, n. sp.

♂. Fore wing with the apex rectangular, the inner margin nearly straight; the fringe of scales extending to end of cell; the areole present. Head, thorax, abdomen, and fore wing greyish white with an ochreous tinge, the last with traces of a highly excurved line from middle of costa to inner margin beyond middle; slight dark streaks on veins of outer area. Hind wing yellowish white.

*Hab.* Khásis. *Exp.* 28 millim. Types in coll. Elwes and B. M.

1348 *a*. **Lithosia chrysophleps**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 294.

♀. Orange-yellow; the head black; collar orange; thorax and abdomen suffused with fuscous. Fore wing with the whole of the interspaces suffused with fuscous, leaving the veins, margins, and cilia orange. Hind wing uniform orange. Underside of fore wing with the disk only suffused with fuscous.

*Hab.* Bhután. *Exp.* 42 millim.

1358. **Lithosia conformis.** ♂. Frons, vertex of head, and abdomen above orange-yellow. Fore wing whiter; underside with the base of costa blackish; the end of cell and subcostal and median nervures and nervules suffused with fuscous.

*Hab.* Khásis.

1367. Insert (syn.) *Pelosia tetrasema*, Meyr. Trans. Ent. Soc. 1894, p. 2.

1370 *a*. **Lithosia sthenoptera**, n. sp.

♂ with a fold in cell of fore wing, but without modified scales on fore and hind wings. Bright ochreous; abdomen tinged with fuscous except the anal segment, in female prominently fuscous. Fore wing very narrow in male, the costa highly arched towards apex in both sexes; hind wing somewhat paler.

*Hab.* Khásis. *Exp.*, ♂ 28, ♀ 34 millim. Types in coll. Elwes and B. M.

Genus **Mithuna.**—Sect. II. Antennæ of male bipectinate; fore wing with vein 6 stalked with 7, 8, 9, 10.

1372 *a*. **Mithuna fuscivena**, n. sp.

♂. Fuscous brown. Fore wing with fuscous streaks on the

veins, diffused on costal, subcostal, and median nervures. Hind wing pale dull ochreous.

♀. Head, thorax, and fore wing uniform pale dull rufous brown.

*Hab.* Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

1381 *a.* **Gampola normalis,** n. sp.

♂. Shape and neuration as in females of the typical species. Yellowish brown suffused with grey; fore wing thickly mottled with grey; hind wing slightly paler and yellow.

*Hab.* Khásis. *Exp.* 28 millim. Type in coll. Elwes.

1386 *a.* **Æmene amnæa,** *Swinh. A. M. N. H.* (6) xiv, p. 437, *and Trans. Ent. Soc.* 1895, pl. i, fig. 13.

♂. Head and thorax white spotted with black; abdomen fuscous. Fore wing white; black basal spots on costa and below median nervure; an antemedial sinuous line, broad at costa and obsolete between median nervure and vein 1; a discocellular black lunule conjoined to the double waved postmedial line, which is filled-in with fuscous from costa to vein 3 and towards inner margin, and incurved from vein 4 to inner margin; a submarginal sinuous maculate line, with lunules on it at costa and above middle; marginal spots at apex and middle of outer margin. Hind wing fuscous black.

*Hab.* Khásis. *Exp.* 22 millim.

1386 *b.* **Æmene diffusifascia,** *Swinh. A. M. N. H.* (6) xvii, p. 362.

♂. Grey. Fore wing with basal fuscous spot on costa; a subbasal spot on median nervure with a semicircular mark beyond it; an antemedial spot on costa; a diffused black-brown medial band, broadest on disk; an ill-defined maculate postmedial line, with black patch beyond it on costa and smaller spots at middle and on inner margin; a marginal series of short striæ and fuscous spots at apex and middle. Hind wing slightly tinged with fuscous; underside with discocellular spot and diffused postmedial line.

*Hab.* Khásis. *Exp.* 22 millim.

1393 *a.* **Oxacme marginata,** n. sp.

♂. Antennæ ciliated. Head, thorax, and fore wing whitish, irrorated with dark scales; abdomen blackish, clothed with white hair; the anal tuft ochreous. Fore wing with dark medial and postmedial specks on costa and some others near apex and on outer margin above and below the angulation. Hind wing yellowish white, with the margin and base of cilia fuscous, developing into a patch at apex.

*Hab.* Khásis. *Exp.* 20 millim. Types in coll. Elwes and B. M.

## Genus SICULIFER, nov.

Type, *S. bilineatus*, Hmpsn.
*Range.* Khásis.

Palpi short and porrect; antennæ of female nearly simple; tibiæ with the spurs well developed; anal tuft of female large. Fore wing with the costa much arched towards apex, which is strongly falcate; vein 2 much curved; 3 from before angle of cell; 4 absent; 6, 7, 8, 9, 10 stalked; 11 from angle of cell. Hind wing with vein 3 absent; 4, 5 and 6, 7 stalked; 8 anastomosing with the cell to middle.

1393 *b*. **Siculifer bilineatus**, n. sp.

♀. Head and thorax dark red-brown; abdomen fuscous. Fore wing dark red-brown, the area towards outer angle yellowish; a straight dark slightly oblique medial line and erect postmedial line; cilia dark. Hind wing fuscous, the cilia on anal half pale.

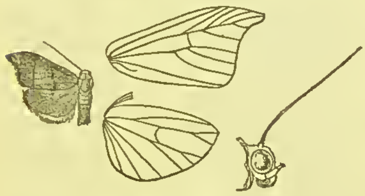

Fig. 263.
*Siculifer bilineatus*, ♀. $\frac{1}{1}$.

*Hab.* Khásis. *Exp.* 20 millim. Types in coll. Elwes and B. M.

## Genus EUCYCLOPERA.

Eucyclopera, *Hmpsn. Trans. Ent. Soc.* 1895, p. 294.

Type, *E. plagidisca*, Hmpsn.
*Range.* Bhután.

♀. Palpi porrect and short; antennæ minutely ciliated; tibiæ with the spurs short; abdomen with large anal tuft. Fore wing short and broadly lanceolate; the costa much arched; the outer margin oblique; veins 3, 4, 5 stalked; 6, 7, 10, and 11 from cell; 8, 9 absent. Hind wing with veins 3, 4, 5 from close to angle of cell; 6, 7 on a long stalk.

1394 *a*. **Eucyclopera plagidisca**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 294.

♀. Head whitish; thorax and abdomen fuscous, the anal tuft grey. Fore wing whitish suffused with fuscous; traces of sinuous subbasal and medial dark lines, the latter with a large round spot on its inner edge on disk; a dentate postmedial line from the spot to near outer angle; a diffused curved submarginal band not reaching the costa or inner margin. Hind wing fuscous.

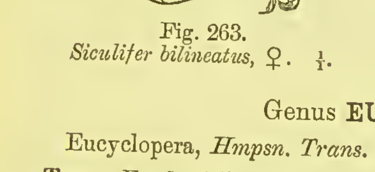

Fig. 264.
*Eucyclopera plagidisca*, ♀. $\frac{3}{2}$.

*Hab.* Bhután. *Exp.* 16 millim.

1397. Insert **Diduga** (*Pitane*) **flavicostata**, *Snell. Tijd. v. Ent.* xxii, p. 92, pl. 10, fig. 8; which has precedence. Pulo Laut.

## Genus **LOBOBASIS**, nov.

Type, *L. niveimaculata*, Hmpsn.
*Range.* Bhután.

Palpi porrect, extending just beyond the frons; antennæ of male ciliated. Fore wing with the costa highly arched at base, with a rounded patch of raised scales and slight fringe of hair beyond it below the costa, and with rough hair from its extremity running round to base of inner margin; vein 2 from near angle of cell; 3, 4 stalked; 5 absent; 6 from upper angle; 7, 8 stalked; 9 absent; 10, 11 free, the latter curved. Hind wing very broad; the costa highly arched; a glandular patch of scales on the costal nervure and end of subcostal; vein 2 absent; 3, 4 from angle of cell; 5 absent, the cell closed; 6, 7 stalked; 8 curved up to costa.

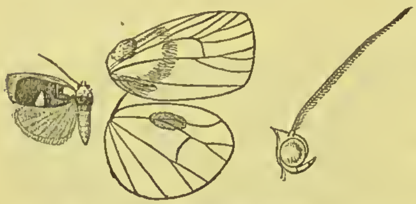

Fig. 265.—*Lobobasis niveimaculata*, ♂. 1/1.

1398 *a*. **Lobobasis niveimaculata**, n. sp.

♂. Head yellow; the vertex of head, collar, and part of patagia and mesothorax snow-white, the rest of thorax red-brown; abdomen yellow. Fore wing red-brown; the costal and outer margins yellow; a large round white spot at base of costa, and a triangular postmedial patch on inner margin. Hind wing yellow.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

Genus **Garudinia**.—Sect. II. Fore wing of male with a tuft of long hair in cell below, the cell very long; vein 1 *b* curved upwards and 2 curved downwards so as almost to meet; 3, 4 from lower angle of cell; 8 absent. Hind wing with patches of modified scales above in cell near lower angle and below costa towards apex; the subcostal nervure fringed with scales below; the cell long, and veins 3, 4 from angle.

1400 *a*. **Garudinia biplagiata**, n. sp.

♂. Head and thorax white; abdomen fuscous, the anal tuft ochreous. Fore wing white; a large semicircular leaden fuscous medial patch from subcostals to inner margin; a similar semilunar postmedial patch from below costa to outer angle. Hind wing pale, suffused with fuscous towards margin; the patches of scales ochreous.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 18 millim. Type in B. M.

Vol. II, p. 100. Under **Anachrostis** insert *Mimeugoa*, Hmpsn. Trans. Ent. Soc. 1895, p. 294, for Sect. II.

1405 *a*. **Anachrostis hypomelas**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 295.

♂. With a tuft of long hair on upperside of hind wing from the middle of cell, directed obliquely upwards to the base. Pale yellowish brown; palpi black at sides. Fore wing irrorated with black; six black specks on costa; an annulus at end of cell; a subapical fuscous patch; a series of black marginal specks. Underside with a large black patch covering the costal half of basal two-thirds of wing.

♀ without the black patch on underside.

*Hab.* Sikhim; Bhután. *Exp.* 20 millim.

1406. Insert (syn.) *Mimeugoa edentifascia*, Hmpsn. Trans. Ent. Soc. 1895, p. 295.

## Genus **GALLERIDIA**, nov.

Type, *G. atrisigna*, Hmpsn.

*Range.* Ceylon.

Palpi upturned, broadly scaled, and reaching vertex of head, the 3rd joint minute; frons produced to a rounded prominence; antennæ of male minutely ciliated; tibiæ with the spurs long. Fore wing long and narrow; veins 3, 4, 5, 6, and 7 well separated at origin; 8, 9 stalked; 10, 11 free. Hind wing with veins 3, 4 stalked; 5 from somewhat above lower angle of cell; 6, 7 from upper angle.

1407 *a*. **Galleridia atrisigna**, n. sp.

Pale brown suffused with grey and irrorated with fuscous. Fore wing with the costa rufous; a prominent short black fascia below end of cell; some black specks near upper angle; an oblique fuscous shade from apex; a marginal series of black specks. Hind wing brownish white, the apical area rather browner with some marginal dark specks.

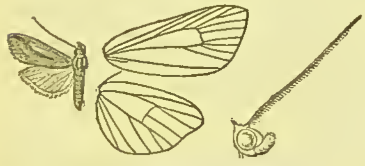

Fig. 266.—*Galleridia atrisigna*, ♂. $\frac{3}{2}$.

*Hab.* Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

1407 *b*. **Galleridia fuscizonea**, n. sp.

Grey-brown irrorated with fuscous. Fore wing with diffused fuscous medial band traversed by three very obscure waved dark lines; a black discocellular spot; traces of a pale crenulate submarginal line outlined with fuscous; a marginal series of dark specks. Hind wing fuscous. Underside with black discocellular spot and traces of curved postmedial line.

*Hab.* Ceylon (*Pole*). *Exp.* 14–16 millim. Type in B. M.

## Genus **TOLPIA**.

Tolpia, *Wlk. Cat.* xxviii, p. 449 (1863).

Type, *T. conscitulana*, Wlk.

*Range.* Ceylon; Borneo.

Palpi porrect and reaching well beyond the frons; antennæ of male minutely ciliated; tibiæ with the spurs long. Fore wing short and broad; veins 3 and 5 from close to angle of cell; 6 from well below upper angle; 7 from the angle; 8 and 10 stalked; 9 absent. Hind wing with vein 3 absent; 5 from above lower angle of cell; 6, 7 stalked.

1407 *c.* **Tolpia conscitulana,** *Wlk. Cat.* xxviii, p. 450.

♂. Brown suffused with fuscous; head and collar smoky black. Fore wing with subbasal black speck on costa; indistinct waved antemedial, postmedial, and submarginal lines arising from black specks on the costa, the first with ochreous inner edge, the two latter with ochreous outer edges; a pale discal patch. Hind wing fuscous, darkest towards outer margin.

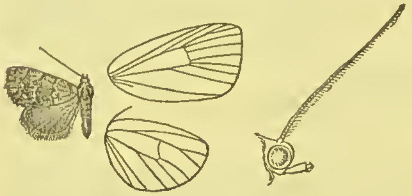

Fig. 267.—*Tolpia conscitulana*, ♂. $\frac{3}{2}$.

*Hab.* Ceylon; Sarawak. *Exp.* 12 millim.

Vol. II, p. 103. Transfer **Trichogyia** to the **Limacodidæ** next **Aræogyia.**

1419. Insert (syn.) *Scaptesyle integra*, Swinh. A. M. N. H. (6) xiv, p. 437. This is the form from the Khásis described in text.

1439 *a.* **Miltochrista disticha,** *Meyr. Trans. Ent. Soc.* 1894, p. 2.

♀. Orange-red; abdomen paler. Fore wing with black dot at base; an antemedial series of four small round black spots and medial series of five spots. Hind wing pale rosy.

*Hab.* Shan States. *Exp.* 27 millim.

1445 *a.* **Miltochrista hololeuca,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 296.

♂. Pure white; palpi and a stripe on outer side of fore tibiæ black.

*Hab.* Bhután. *Exp.* 38 millim.

1451. Insert (syn.) *Miltochrista geodetis*, Meyr. Trans. Ent. Soc. 1894, p. 4.

1459. Insert (syn.) *Miltochrista celidopa*, Meyr. Trans. Ent. Soc. 1894, p. 3=the form *calamaria*.

1461 *a.* **Miltochrista eccentropis,** *Meyr. Trans. Ent. Soc.* 1894, p. 3.

♂. Head white; palpi fuscous; thorax orange, white behind.

Fore wing white; a dark grey round subbasal spot; two curved antemedial series of five spots; a curved orange antemedial band; a black discal spot; a postmedial line excurved round cell, with all the veins beyond it streaked with black. Hind wing ochreous white; the veins streaked with fuscous towards outer margin, more shortly towards anal angle.

*Hab.* Shan States. *Exp.* 20 millim.

1461 *b.* **Miltochrista umbrosa**, n. sp.

♂. Head and thorax ochreous, almost wholly suffused with black-brown; abdomen black and grey-brown. Fore wing with the ground-colour whitish, with a very large triangular black-brown costal patch on basal area and the irregular postmedial band diffused in places to the margin, occupying almost the whole wing except the inner basal and medial areas; a basal dark spot, subbasal and antemedial series of two spots, and a medial oblique series of six spots. Hind wing yellowish, with diffused fuscous marginal band narrowing to anal angle.

*Hab.* Khásis. *Exp.* 30 millim. Type in coll. Elwes.

1463 *a.* **Miltochrista eschara**, *Swinh. A. M. N. H.* (6) xiv, p. 438.

♀. Bright ochreous. Fore wing with a triangle formed by two black lines radiating from base of median nervure and conjoined to a medial line which is excurved at middle and joined at vein 4 by a highly curved postmedial line sending three streaks towards the apical half of outer margin; a spot near outer angle and prominent marginal line.

*Hab.* Khásis. *Exp.* 20 millim.

1465 *a.* **Miltochrista nigriradiata**, n. sp.

♀. Bright rose-pink; palpi and fore legs blackish. Fore wing with the base of costa black; two black spots at base; an antemedial black line excurved in cell, inwardly dentate below cell and outwardly dentate on vein 1; a straight oblique medial line; a black discocellular spot; a postmedial line excurved round cell and incurved below it, with seven streaks on the veins beyond it, the one below costa forked; all the markings very prominent.

*Hab.* Bhután (*Dudgeon*). *Exp.* 28 millim. Type in B. M.

1473. Insert (syn.) *Ammatho epixantha*, Meyr. Trans. Ent. Soc. 1894, p. 2. The yellow form from the Khásis and Shan States.

1475. Insert (syn.) *Miltochrista callinoma*, Meyr. Trans. Ent. Soc. 1894, p. 3.

1486 *a.* **Nudaria fulvipicta**, n. sp.

♂. Ochreous white. Fore wing with ill-defined dark subbasal line and incomplete curved fulvous antemedial line; the area beyond middle suffused with fuscous, with a large dark-edged

fulvous patch from lower angle of cell to costa; a pale dentate postmedial line; a submarginal series of fulvous streaks on the veins ending in black marks on the margin at costa, vein 4, and inner margin; ochreous patches on the margin above and below middle.

*Hab.* Khásis. *Exp.* 16 millim. Type in B. M.

1488 *a.* **Nudaria fumidisca**, n. sp.

♂. Yellowish white. Fore wing with fuscous markings at base; the medial inner area smoky black, connected with costa by sinuous ante- and postmedial brown lines and joined to a spot in the cell; traces of some brown submarginal markings and a prominent dark spot near outer angle. Hind wing semidiaphanous, with slight fuscous suffusion between the cell and anal angle.

*Hab.* Khásis. *Exp.* 18 millim. Types in coll. Elwes and B. M.

1488 *b.* **Nudaria promelæna**, n. sp.

♂. Head, thorax, and abdomen ochreous white. Fore wing fuscous brown, with irregular white fascia on base of inner margin; traces of a pale sinuous antemedial line; dark specks in end of cell and on discocellulars; a pale dentate postmedial line, angled beyond lower angle of cell and expanding into a patch on inner margin; a dentate line just inside margin expanding into a patch below apex and interrupted at middle. Hind wing ochreous white, with traces of curved postmedial line.

*Hab.* Khásis. *Exp.* 18 millim. Type in B. M.

Genus **Cacyparis**.—Sect. II. Fore wing with vein 7 from cell; 8, 9, 10 stalked. Hind wing with veins 3, 4 shortly stalked.

1496. **Cacyparis læta.** Insert (syn.) *Tortrix fimbriana*, Wlk. Char. Undescr. Het. p. 101; C. & S. no. 4749.

♂. Hind wing with small black patch on excurved part of outer margin; underside with large black patch on middle of inner area and small patch on the margin.

1515 *a.* **Siglophora ferreilutea**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 296.

♀. Bright orange-yellow; head, thorax, and abdomen marked with deep red. Fore wing with eight deep red dentate lines, two of the antemedial lines having ferruginous between them; a ferruginous patch on middle of inner margin; the outer area from below the apex to nearly the middle of inner margin almost completely covered by a ferruginous patch. Hind wing with the basal and costal areas white; the inner and outer areas yellow turning to ferruginous.

*Hab.* Sikhim. *Exp.* 30 millim.

1520 *a.* **Nola laticincta**, n. sp.

♂. Differs from *fragilis* in the thorax and abdomen being tinged

with fuscous. Fore wing with the whole area between the ante- and postmedial lines dark brown, the postmedial line angled at middle; the submarginal liue beut inwards towards costa. Hind wing tinged with fuscous.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 14 millim. Type in B. M.

1524 *a.* **Nola punctilineata**, n. sp.

♀. Brownish grey. Fore wing with subbasal black streak below costa; au oblique antemedial series of three black specks; a medial series of specks almost joined at iuner margin by an oblique postmedial series; a submarginal waved series. Hind wing fuscous, with dark discocellular line.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 22 millim. Type in B. M.

1528. **Nola pascua.** Hind wing of male with a fold ou inner area coutaining a tuft of brown hair and some thick hair below.

1532 *a.* **Nola obliquifasciata**, n. sp.

♀. Head white; palpi black, white at tip; antennæ black; thorax fuscous, the patagia white-tipped; abdomen fuscous. Fore wing white; a greyish-black patch at base of costa; a broad oblique greyish-black band from middle of costa to near outer angle with waved black edges, some shining scales ou it, and a dark spot below costa and white spot at middle; a dark patch on costa before apex, with traces of a sinuous submarginal line arising from it; a large triangular greyish-black patch occupying most of outer area; a marginal series of black specks. Hind wing pale fuscous.

*Hab.* Ceylon (*Green*). *Exp.* 16 millim. Type in B. M.

1534 *a.* **Nola marginata**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 296.

Head pure white; thorax and abdomen with a slight fuscous tinge. Fore wing pale fuscous; the costal area pale brown, with two postmedial white specks; a black speck at upper angle of cell; traces of an oblique dark medial liue; a sinuous submarginal line excurved between veins 5 and 2, with the fuscous deepening to black on its inner edge aud the area beyond it pale brown. Hind wing white with a slight fuscous tinge.

*Hab.* Bhután. *Exp.* 16 millim.

*Antennæ of male bipectinate.*

1534 *b.* **Nola microphasma**, *Butl. Cist. Ent.* iii, p. 117.

Rhynchopalpus grisealis, *Swinh. Trans. Ent. Soc.* 1895, p. 25.

Greyish white slightly suffused with brown. Fore wing with two dark specks below base of costa; an antemedial series of specks; a dark spot in end of cell; a postmedial curved series of specks aud a submarginal waved series. Hind wing whiter.

*Hab.* Japan; Bhután; Khásis. *Exp.* 14 millim.

Nos. 1522. **Nola denticulata,** aud 1533. **N. major,** also belong to this section; the latter has ♂ 18 millim., aud occurs also in Sikhim, Bhutáu, and Burma.

1534 *c.* **Nola tesselata,** n. sp.

♂. Head aud thorax white; palpi brown at sides; vertex of thorax fuscous; abdomen brownish. Fore wiug with the basal area white, with dark mark on base of costa, its outer edge angled below cell; the rest of wing fuscous irrorated with metallic scales; postmedial and apical almost conjoined white patches on costa and another at outer angle; traces of crenulate postmedial and submarginal dark lines angled at middle. Hind wing whitish.

*Hab.* Khásis. *Exp.* 20 millim. Type in B. M.

Sect. III. Fore wing with vein 9 present aud given off from 8.

1534 *d.* **Nola nigrisparsa,** n. sp.

♀. Head, thorax, and abdomen greyish white irrorated with black; palpi blackish. Fore wiug white irrorated with black; a short black streak below base of costa; three tufts of scales in the cell; an indistinct waved and curved antemedial black line; two irregularly waved medial black lines excurved beyond cell and with a blackish patch between them from costa to veiu 5; an oblique line across the apex and blackish patches on outer area at middle and outer angle. Hind wing blackish fuscous.

*Hab.* Bhutáu, 2500 feet (*Dudgeon*). *Exp.* 18 millim. Type in B. M.

1534 *e.* **Nola tenebrosa,** n. sp.

♀. Head and thorax brown; abdomen grey. Fore wing brown, with a broad band of purplish fuscous suffusiou from middle of costa extending obliquely to base of inner area; au indistinct antemedial black line angled below costa and with a blackish patch beyond it on costa; a postmedial line sharply angled below costa and slightly on vein 4; a diffused irregularly waved submarginal line; two tufts of scales in the cell. Hind wiug fuscous.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

1539 *a.* **Pisara discisignata,** n. sp.

♂. Head and thorax white, the head aud collar tinged with rufous; the palpi fuscous; abdomen pale fuscous. Hind wing whitish, suffused with fuscous except ou iuner basal area, the medial area tinged with rufous, with some ill-defined fuscous spots on it aud a promineut black discocellular spot, bounded inwardly by an indistinct sinuous line and outwardly by a line excurved round end of cell; traces of a submarginal line; a marginal series of dark specks. Hind wing pale fuscous.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 12 millim. Type in B. M.

1540 *a*. **Pisara argentescens**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 296.

♀. Silvery grey, slightly suffused and irrorated with fuscous. Fore wing with traces of curved subbasal line; a large fuscous patch on middle of costa extending down to vein 2; an indistinct crenulate postmedial line with curved line beyond it and fuscous suffusion between them; an indistinct curved and irregularly sinuous submarginal line. Hind wing fuscous.

*Hab.* Sikhim. *Exp.* 26 millim.

1540 *b*. **Pisara fuscibasalis**, n. sp.

Fuscous brown and grey. Fore wing with the basal half suffused with fuscous brown, leaving a large grey patch on basal inner area; curved and slightly sinuous dark antemedial and medial lines; an indistinct postmedial line excurved from costa to vein 4, then incurved; the postmedial area grey; the outer area fuscous. Hind wing fuscous, pale at base.

*Hab.* Ceylon (*Pole*); Thayetmyo, Burma (*Watson*). *Exp.* 14 millim. Type in B. M.

1541 *a*. **Pisara mediozonata**, n. sp.

♂. Greyish white. Fore wing with a rounded brown spot on base of costa; a broad medial fuscous band irrorated with a few shining scales, and with two rounded brown spots on it at costa, a black line on its inner edge expanding towards the first brown spot and two slightly irregular black lines on its outer edge; an irregular fuscous submarginal line and a marginal line. Hind wing paler fuscous, with a dark discocellular mark.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 16 millim. Type in B. M.

1541 *b*. **Pisara seminigra**, n. sp.

♀. Pure white; palpi black; abdomen tinged with fuscous towards extremity. Fore wing with a short oblique black band from costa near base, with leaden-coloured scales on it; a similar band at middle conjoined to a postmedial band of tufts of leaden-coloured scales, the area beyond it brown suffused with black; an irregular submarginal series of tufts of leaden-coloured scales. Hind wing with the outer area suffused with fuscous.

*Hab.* Bhután (*Dudgeon*). *Exp.* 18 millim. Type in B. M.

1543 *a*. **Pisara argentisparsa**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 297.

♂. Head and thorax white; abdomen suffused with fulvous and fuscous; wings white, suffused with fulvous and fuscous and irrorated with a few brilliant silver scales. Fore wing with traces of minutely dentate ante- and postmedial lines, the latter much excurved beyond cell.

*Hab.* Simla. *Exp.* 22 millim.

SECT. III. Antennæ bipectinate in both sexes; fore wing with vein 10 anastomosing with 7, 8, 9, enclosing in male a small hyaline fovea covered by a valve of scales above.

1545 *a*. **Pisara gemmata**, n. sp.

Head, thorax, and abdomen whitish; palpi at sides and shaft of antennæ black. Fore wing yellowish white, the costal area to beyond middle suffused with black; the outer area rufous below apex, blackish towards outer angle; the basal, costal, and outer areas irrorated with raised metallic scales; two tufts of metallic scales on discocellulars, and in male a valve above them covering the fovea and almost joined to a sinuous postmedial line of raised metallic scales; a very irregularly sinuous submarginal line of raised metallic scales. Hind wing pale fuscous.

*Hab.* Sikhim (*Pilcher*). *Exp.* 18 millim. Type in B. M.

## Genus CYPHOTOPSYCHE.

Cyphotopsyche, *Hmpsn. Trans. Ent. Soc.* 1895, p. 297.

Type, *C. ustipennis*, Hmpsn.

*Range.* Bhután.

Palpi porrect, extending about the length of head, the 2nd joint thickly scaled, the 3rd naked; antennæ of male bipectinated with short branches to two-thirds length and with a large tuft from basal joint; the collar forming large upright paired triangular hoods extending over the head; abdomen with a pair of large corneous wing-shaped plates from base extending over dorsum. Fore wing with veins 7, 8, 9, 10 stalked. Hind wing with veins 3, 4 and 6, 7 stalked; 5 from middle of discocellulars.

1545 *b*. **Cyphotopsyche ustipennis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 297.

♂. Head, thorax, and abdomen clothed with greyish, dark rufous, and black scales. Fore wing grey-brown; the costal area dark fuscous; ill-defined dark streaks in the interspaces; a dark fascia from lower angle of cell to outer margin; a dark patch on outer margin below apex; the margin and cilia dark fuscous. Hind wing pale greyish; the cilia fuscous at apex.

Fig. 268.
*Cyphotopsyche ustipennis*, ♂. 1/1.

*Hab.* Bhután. *Exp.* 24 millim.

*Larva.* Early stages: creamy buff with dorsal, subdorsal, and sublateral series of small warts bearing tufts of long buff hairs; four pairs of prolegs, the 6th somite being without prolegs; the cast skins of the head are attached to a long tuft of hair projecting forward from 1st somite, so that the number of moults can be counted by the number of skins present.

The full-grown larva is snow-white, covered with a down-like

detachable substance with slight creamy tinge below; the hairs white except five or six long black hairs on thoracic somites; head buff, marked with brown striæ; a dorsal black mark on 1st somite, partly hidden by the head-bearing tuft which after the last moult bears five head-skins. The larva progresses with a jerky motion; it forms a flap-like cocoon by biting off pieces of rotten wood and bark and interlacing them with its long hairs which are left projecting; before fastening down the flap it rubs its head against it for a long time, and with much difficulty detaches the tuft and head-skins and attaches them to the side of the cocoon.

1547 *a*. **Selca ruficostata**, n. sp.

♀. Grey, thickly irrorated with fuscous. Fore wing with the costal area chestnut to beyond middle, including almost the whole of the cell, in which are three tufts of raised scales and two on the discocellulars; traces of an irregular dark antemedial line; a postmedial line excurved between veins 6 and 3, then very oblique; an irregularly and highly dentate submarginal line. Hind wing dark fuscous.

*Hab*. Bhután (*Dudgeon*). *Exp*. 32 millim. Type in B.M.

## AGARISTIDÆ.

Vol. II, p. 149. In the genus **Eusemia** transfer all, except Sect. III, to **Chelonomorpha**.

## NOCTUIDÆ.

1605 *a*. **Heliothis hyalosticta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 298.

♂. Grey. Fore wing irrorated with brown; traces of a waved subbasal line; some dark specks on costa; a spot on discocellulars; a postmedial curved series of specks on the veins and a marginal series. Hind wing paler; a dark discocellular lunule; an indistinct curved postmedial line; the outer area slightly darker. Underside with the discocellular spot of fore wing deep black.

*Hab*. Karáchi. *Exp*. 22 millim.

1616. Transfer *Arsiloncha roseana*, Swinh., and the locality Bhámo, Burma, to 1615, **Chariclea irrorata**.

P. 180. **Raghuva**. Male with glandular swelling at middle of costa of fore wing.

### Genus **TRICHANARTA**, nov.

Type, *T. ladakensis*, Feld.

*Range*. Himalayas.

Palpi porrect, fringed with long hair below and reaching just beyond the large frontal tuft; eyes hairy and with long lashes; antennæ ciliated; tibiæ strongly spined; thorax and abdomen without tufts. Fore wing with the outer margin non-crenulate. Hind wing with veins 3, 4 from cell.

1619 *a*. **Trichanarta ladakensis**, *Feld. Reis. Nov.* pl. 108, fig. 38; *C. & S.* no. 1964.

♀. Grey-brown irrorated with black. Fore wing with minutely waved antemedial line; deep black orbicular and claviform spots; the reniform large with black outline and fuscous centre; a waved dark submarginal line terminating on vein 2; a marginal series of specks. Hind wing pale yellow; the basal and inner areas irrorated with black; a discocellular speck; a fuscous submarginal mark on apical area. Underside almost white; the discocellular black marks and submarginal bands very prominent.

Fig. 269.
*Trichanarta ladakensis*, ♀. 1/1.

*Hab.* Ladákh. *Exp.* 20 millim.

1622. *Agrotis biconica* = **A. spinifera**, *Hübn. Samml. eur. Schmett., Noct.* fig. 389; which has precedence.

1627 *a*. **Agrotis postfusca**, n. sp.

Antennæ of male with fascicles of cilia at end of branches.

♂. Head and thorax pale ochreous and fuscous; palpi black and rufous except the end of 2nd and the 3rd joint; abdomen fuscous, the anal tuft fulvous. Fore wing ochreous grey, with indistinct double waved antemedial line dentate inwards on vein 1; the orbicular and reniform large and grey, with a black patch between them and another before the orbicular in cell; a large black patch beyond the reniform crossed by the double waved postmedial line; a marginal series of dark specks. Hind wing fuscous, the cilia pale. Underside with discocellular spot and sinuous postmedial line; the costal area fuscous, the inner area pale.

*Hab.* Ceylon (*Green*). *Exp.* 34 millim. Type in B. M.

1628. **Agrotis intracta** = 1646, *A. modesta*, and has precedence.

1636. Omit *Apamea nubila*, Moore, from the synonymy (see 1729 *a*).

1679 *a*. **Hadena agrotiformis**, n. sp.

♂. Grey-brown; abdomen with a white-tipped dorsal tuft on basal segment. Fore wing with traces of a short subbasal line, an indistinct crenulate antemedial line with fuscous suffusion between it and the subbasal line; the orbicular a dark annulus; claviform prominent and filled-in with fuscous; reniform very large, with fuscous centre; the postmedial line represented by a series of white and dark specks on the veins, excurved beyond cell; white specks on outer half of costa; dark streaks on veins of outer area and small triangular marginal marks between the veins. Hind wing white, with traces of a diffused submarginal fuscous band.

*Hab.* Ceylon (*Pole*). *Exp.* 28–30 millim. Type in B. M.

1681. **Hadena ? hastata** is an **Euplexia** near 1714, **E. adjuncta** (abdomen of type wanting).

1693. **Hadena cuprina** is an **Eurois**=1783, which is not *E. chalybeata* (see 1783 *a*).

1696. *Hadena indica* is an **Acronycta** = **A. rumicis**, *Linn. Syst. Nat.* i, 2, p. 852. Europe; N.W. Himalayas.

1713. Insert (syn.) *Bombycia hodita*, Swinh. A. M. N. H. (6) xv, p. 6.

1729 *a*. **Euplexia nubila**, *Moore, P. Z. S.* 1881, p. 346, pl. 38, fig. 10; *C. & S.* no. 2057.

♂. Red-brown suffused with purplish grey; abdomen pale brown, with rufous dorsal tufts. Fore wing with irregular black streak below base of median nervure; a double curved and waved antemedial line; the orbicular and reniform large, indistinct and ovoid; claviform black-edged and kidney-shaped; a double waved postmedial line highly excurved beyond cell, a black streak from it to the indistinct double dentate submarginal line below vein 2. Hind wing pale red-brown. Underside with indistinct cell-spot.

*Hab.* Sikhim. *Exp.* 40 millim.

1741 *a*. **Euplexia chlorerythra**, *Swinh. Trans. Ent. Soc.* 1895, p. 41, pl. i, fig. 6.

♂. Palpi black, the end of 2nd joint white; head and thorax white slightly tinged with green; abdomen black, with some white at base, on vertex, and extremity. Fore wing pale green at base; a subbasal pale rufous band with black specks on its inner edge, triangular black mark below cell, and sinuous white outer edge; the medial area pale green; a black speck below middle of cell; the orbicular aud reniform white, partially edged with black and with black suffusion above, between, and below them; costa speckled with white and black; a white postmedial line incurved below vein 4 and expanding towards inner margin, the area beyond it bright rufous, becoming ochreous towards the margiu, with an obscure minutely dentate submarginal black line followed by a series of specks; cilia black. Hind wing fuscous black; an indistinct postmedial line; the base of cilia ochreous. Underside of fore wing and costal half of hind wing black; the margin of both wings and inner half of hind wing whitish; hind wing with cell-spot and postmedial line; both wings with some submarginal specks.

*Hab.* Khásis. *Exp.* 36 millim.

1743 *a*. **Euplexia plumbeomarginata**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 298.

♂. Head and collar ochreous, the latter tipped with leaden grey; thorax leaden grey and ochreous; abdomen leaden grey, ochreous at base. Fore wing ochreous white, slightly irrorated with fuscous; some black specks at base; a large oval black patch

from middle of costa to below vein 2, embracing the large U-shaped reniform with its inner arm very broad, the patch then continued to inner margin as an oblique line with some rufous on its outer edge; an irregularly dentate submarginal black line, with the area beyond it leaden grey except for an ochreous apical spot. Hind wing fuscous, with traces of pale postmedial band; both wings with a fine white line at base of cilia. Underside ochreous, mostly suffused with black.

*Hab.* N. Khyen Hills. *Exp.* 32 millim.

1755 is **Euplexia icamba**, *Swinh. A. M. N. H.* (6) xii, p. 260; *not* no. 1757.

1757. Rename **E. viridinigra**, *Hmpsn.*, nom. nov.

1777. *Eurois albicostata* = 2537. *Baniana? conjugata*, and must stand as **Eurois conjugata.**

1780 *a*. **Eurois chalcochlora**, n. sp.

Pale yellowish olive-green. Fore wing with short sinuous subbasal line; an irregularly dentate antemedial line; the orbicular and reniform white-edged, the former small, the latter with fuscous centre and contracted at middle; a series of white spots on apical half of costa; an indistinct minutely dentate dark postmedial line and incomplete white submarginal line; a series of black marginal specks edged by white lunules. Hind wing fuscous above, with indistinct dark discocellular lunule and sinuous postmedial line; cilia olive, below whitish, the costal half irrorated with olive, the spot and line black.

*Hab.* Sikhim (*Pilcher*). *Exp.* 30 millim. Type in B. M.

1783=1693 and should stand as **Eurois cuprina**, *Moore.*

1783 *a*. in Sect. III.:—

**Eurois chalybeata**, *Wlk. Cat.* xxxii, p. 665; *C. & S.* no. 2071.
Mamestra suffusa, *Moore, P. Z. S.* 1867, p. 52; *C. & S.* no. 2081.

Differs from *cuprina* in being without the ferruginous tinge. Fore wing longer and narrower, with the reniform sometimes white; a few blue-white scales on the veins, especially at outer margin; the submarginal line slightly more incurved between veins 6 and 4

*Hab.* Kulu; Sikhim; Khásis. *Exp.*, ♂ 48–52, ♀ 58 millim.

1785. **Eurois virens** is an **Agrotis** near **A. accipiter**, *Feld.*

1818 *a*. **Acronycta gastridia**, *Swinh. A. M. N. H.* (6) xv, p. 6.

♀. Differs from *pruinosa* in the fore wing being longer; hind wing more uniformly suffused with fuscous and with indistinct discocellular lunule; the margin white towards anal angle. Under-

side of hind wing uniformly white, slightly irrorated with brown; the discocellular lunule prominent.

*Hab.* Murree. *Exp.* 42 millim.

1829 *a.* **Prodenia synstictis**, n. sp.

Differs from *littoralis* in the abdomen being white. Fore wing with the markings on basal area less prominent; the antemedial lino more regular; the orbicular and reniform stigmata narrower and forming a V-shaped mark by meeting on median nervure; the median nervules slightly streaked with white; hardly a trace of grey beyond the postmedial line; the submarginal line more regular, with dark points instead of streaks on its inner edge. Hind wing pure white, without the dark marginal line.

*Hab.* Nilgiris (*Hampson*); Ceylon (*Pole*). *Exp.* 28–30 millim. Type in B. M.

1833 *a.* **Amyna apicalis**, *Moore, Lep. Atk.* p. 112; *C. & S.* no. 2086.
Ilattia cupreipennis, *Moore, Lep. Atk.* p. 112; *C. & S.* no. 2090.

A distinct species belonging to Sect. I. without the vesicle in cell, *apicalis* being the brown form, *cupreipennis* the cupreous.

*Hab.* China; Sikhim. *Exp.*, ♂ 30, ♀ 32 millim.

1835. **Amyna ? monilis.** Transfer to **Eurois**; the type is a female.

1838 *a.* **Callopistria variegata**, *Swinh. Trans. Ent. Soc.* 1895, p. 44.

♀. Head, thorax, and fore wing varying from dark rufous to green and irrorated with black. Fore wing with the greater part of the medial area suffused with fuscous; some indistinct waved lines on basal area and similar postmedial and submarginal lines; two white spots beyond lower angle of cell, four on outer half of costa, and a dentate white line from costa before apex to vein 6. Abdomen and hind wing fuscous, the latter with more or less white at base. Underside grey, with black cell-spot and postmedial line.

*Hab.* Bhután; Khásis; Ceylon. *Exp.* 32 millim.

1839 *a.* **Callopistria guttulalis**, n. sp.

♂. Fore wing with the outer margin excised below apex and excurved at middle. Very pale rufous marked with dark brown; thorax and basal area of fore wing pencilled by dark edges to groups of scales; a large dark brown anal tuft. Fore wing with an ill-defined oblique dark subbasal streak; a medial dark line acutely angled to lower angle of cell; a large indistinct reniform spot, with the minutely dentate double postmedial line bent outwards round it; an indistinct minutely dentate pale submarginal line and some dark lunules on margin; some pale specks on costa towards apex. Hind wing pale, with fuscous suffusion on outer area.

*Hab.* Ceylon (*Pole*). *Exp.* 26 millim. Type in B. M.

Genus **Caradrina.**—SECT. I. A, c. *Hind wing of male with veins 3, 4 stalked; a ridge of closely-set upturned scales in cell and another on vein 1 b; inner margin with tufts of long hair.*

1874 *a.* **Caradrina lophophora,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 299.

♂. Differs from *quadripunctata* in having two white specks at end of cell of fore wing; the postmedial line excurved round end of cell.

*Hab.* Nágas. *Exp.* 26 millim.

1947. *Nonagria fuscovirens* = **N.** (*Isochlora*) **viridis,** *Staud. Rom. Mem.* v, pp. 88 & 161, pl. viii, fig. 9; which has precedence. Antennæ of male bipectinate.

Vol. II, p. 287. *Phycidomorpha*=**Rhangena,** *Moore, Lep. Ceyl.* iii, p. 376 (1886).

1955. Insert **Rhangena roseipennis,** *Moore, Lep. Ceyl.* iii, p. 375, pl. 184, fig. 12; *C. & S.* no. 4735; which has precedence.

1958. *L. cygnus* = **Leocyma tibialis,** *Fabr. Syst. Ent.* p. 578 = *L. dianæ*, Guen. Noct. ii, p. 213; C. & S. no. 1783.

Formosa; Tahiti; Tonga; New Caledonia.

1960 *a.* **Leocyma pilcheri,** n. sp.

♂. Head and thorax white above, black below; palpi and antennæ black; paired metallic blue-black spots on collar, meso- and metathorax; legs black ringed with white; abdomen fuscous. Fore wing white; three blue-black spots on basal half of costa and three on apical half, one joined to a large discocellular spot; a small round spot in cell, one on vein 1 near base; one antemedial and three postmedial conical spots on inner margin; a small spot on cilia below apex and another above outer angle. Hind wing fuscous, with marginal white band. Underside fuscous, the marginal and inner areas white; a white postmedial spot to fore wing and incomplete medial band to hind wing.

*Hab.* Sikhim (*Pilcher*). *Exp.* 36 millim. Type in B. M.

1966–67. **Diphthera vigens** and **D. pallida.** Antennæ of male with short branches.

1969 *a.* **Perciana rectilineata,** n. sp.

♀. Head, thorax, and fore wing dark brown with a purplish tinge, the last with oblique straight dark-edged ochreous ante- and postmedial lines; traces of a waved dark submarginal line; abdomen and hind wing fuscous.

*Hab.* Sikhim (*Dudgeon*). *Exp.* 30 millim. Type in B. M.

1969 *b.* **Perciana fuscobrunnea,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 299.

♂. Head, thorax, and abdomen clothed with brown and fuscous scales. Fore wing brown; a large fuscous patch on basal half of

wing except on inner area; a waved black antemedial line; small tufts of black scales at middle and end of cell; a sinuous medial line bent inwards on median nervure; a fuscous apical patch defined by an oblique dark streak; a waved series of pale submarginal specks and marginal series of black lunules. Hind wing fuscous.

*Hab.* Bhután. *Exp.* 28 millim.

1977 *a.* **Bryophila obliquifascia,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 299.

♂. Greyish white with a green tinge; palpi fuscous at sides; the anal tuft ochreous. Fore wing with outwardly oblique black band with sinuous edges, terminating on vein 1 and bent outwards along it to join the crenulate submarginal line, which is excurved beyond cell and incurved below vein 2; a black spot at upper angle of cell with dark mark on costa above it; a black speck at lower angle of cell; a dark costal spot beyond the postmedial line; a marginal series of specks and spot above outer angle. Hind wing with indistinct discocellular dark lunule and highly curved postmedial line, both more distinct on underside.

*Hab.* Bhután. *Exp.* 32 millim.

1991 *a.* **Erastria distigmata,** n. sp.

Fuscous brown with a cupreous tinge; vertex of head and end of 2nd joint of palpi pale; tarsi with pale rings. Fore wing with short white subbasal line from costa; an antemedial series of white specks arising from a short costal line; a white annulus at upper angle of cell and round spot at lower; a postmedial minutely waved white line prominent at costa and bent outwards beyond end of cell; a waved white submarginal line. Underside with the costal and outer areas of fore wing grey. Hind wing grey, with black discocellular lunule, prominent crenulate postmedial line, and obsolescent submarginal line.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 34 millim. Type in B. M.

1991 *b.* **Erastria picta,** n. sp.

♂. Pale red-brown; palpi at sides and patagia slightly marked with black. Fore wing with an olive tinge; the basal half of costal area fuscous; a sinuous dark antemedial line, bent outwards below cell; the orbicular, reniform, and claviform with bright pink scales on them; the area below end of cell suffused with black; a dark postmedial line angled outwards beyond end of cell, where there are a few pink scales on it, and inwards on vein 1, the area beyond it suffused with white; an oblique shade from apex and a diffused black submarginal line on medial area; cilia of both wings chequered black and white. Hind wing more ochreous, with traces of postmedial line; some dark scales on inner area and three dark marginal marks on median nervules.

*Hab.* Khásis. *Exp.* 24 millim. Type in B. M.

Vol. II, p. 304 *Hyelopsis*=**Maliattha**, *Wlk. Cat.* xxvii, p. 86 (1863), which has precedence. Type, *M. separata*, Wlk.

1998. *Hyclopsis renalis* = **Maliattha separata**, *Wlk. Cat.* xxvii, p. 86. Sikhim; Borneo.

2023 *a*. **Tarache eulepidea**, n. sp.

♀. Cretaceous white; head and thorax irrorated with brown and fuscous scales; abdomen tinged with ochreous, the 1st segment suffused with fuscous. Fore wing with the basal area irrorated with brown and a few black scales; a double sinuous antemedial black line almost obsolete except near inner margin; a double sinuous postmedial black line very much excurved between costa and vein 2; the area between the ante- and postmedial lines suffused with blue-grey, olive-brown, and black, and with a black O-shaped mark on disk; outer area with large brown patches beyond the postmedial line at costa and inner margins, and small patch beyond the bend; au irregularly sinuous white submarginal liue; the margin and cilia blue-grey. Hind wing fuscous; the cilia pale.

*Hab.* Puttalam, Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

2036. *For* "Berget. Ins. Suec. i, p. 16" *read* "Linn. Syst. Nat. i, 2, p. 881."

2037 *a*. **Tarache nigritula**, n. sp.

♀. Black-brown. Fore wing with indistinct waved black and brown antemedial line; a yellowish-white speck in cell; a large yellowish-white patch just beyoud middle, joined to the costa by three specks; an indistinct dentate black and brown postmedial line excurved round the white patch; a white speck on costa before apex; an indistinct waved submarginal line, the area beyond it variegated with brown and ochreous; a margiual series of black specks and an ochreous patch at outer angle. Hind wing fuscous.

*Hab.* Sind (*Nurse*); Puttalam, Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

2049 *a*. **Xanthoptera combusta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 300.

♀. Ochreous, dark rufous, and fuscous; thorax mostly ochreous. Fore wing with the base dark; an ill-defined ochreous band before the diffused dark antemedial band; the medial area, except the costa and the disk, ochreous, with a dark spot on vein 2; an indistinct double sinuous postmedial line; a dark patch on outer margin from costa to vein 3, and a dark patch on inner margin from the postmedial line to outer margin. Hind wing with the basal two-thirds ochreous, suffused and irrorated with rufous; a sinuous antemedial line with discocellular annulus on it; the outer third dark rufous with indistinct sinuous submarginal line.

*Hab.* Bhután. *Exp.* 24 millim.

SECT. III. Antennæ of male bipectinated, with short stiff branches.

2054 *a*. **Xanthoptera pectinicornis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 300.

♂. Head and thorax rufous; abdomen pale. Fore wing rufous brown slightly suffused with fuscous; the orbicular and reniform represented by a few ochreous scales; a series of dark submarginal marks forming an indistinct line. Hind wing pure white, the costal and apical areas tinged with fuscous.

*Hab.* Calcutta; Ceylon. *Exp.* 18 millim.

2080 *a*. **Metachrostis metallica**, n. sp.

♀. Head and thorax black and chestnut-brown; abdomen black with pale rings. Fore wing with the basal area chestnut, with some black at base and a black antemedial line; the medial area black, with bands of leaden-grey suffusion on its edges; dark-edged pale brown marks representing the orbicular and reniform; a pale brown and black minutely waved and curved postmedial line; outer area dark brown and black, with interrupted submarginal band of leaden suffusion; an ochreous marginal line; some pale specks on costa towards apex. Hind wing black-brown.

*Hab.* Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

2080 *b*. **Metachrostis albimarginata**, n. sp.

♀. Pale ochreous irrorated with brown. Fore wing with indistinct double sinuous antemedial brown line; the reniform with fuscous centre and black edge, and a diffused waved black line from its inner side to inner margin, the area beyond it purple-brown; the black postmedial line very oblique from costa to vein 6, then sinuous and at vein 4 incurved, the area beyond it white, with a black patch on costal half between the postmedial and sinuous fuscous submarginal line. Hind wing fuscous brown, with diffused fuscous submarginal line, the area beyond it whitish especially at apex; both wings with a marginal black line; cilia fuscous and white.

*Hab.* Bhuj, Cutch (*Nurse*). *Exp.* 16 millim. Type in B. M.

Genus **Rivula**.—SECT. II *bis*. Mid tibiæ of male with very long scales on inner side; hind tibiæ fringed with spinous hair on outer side.

2103 *a*. **Rivula striatura**, *Swinh. Trans. Ent. Soc.* 1895, p. 49, pl. i, fig. 10.

♂. Pale brownish ochreous. Fore wing with obscure brown streaks at base and on veins of outer area; a dark speck at end of cell, with oblique pale striga from costa above it, and oblique rufous-brown band from it to inner margin near base; an obliquely

waved postmedial line merging into a fuscous subapical patch; some pale strigæ on costa towards apex; a subapical black speck and marginal series of specks. Hind wing fuscous; the cilia rufous.

♀ with the markings bright rufous; hind wing darker.

*Hab.* Khásis. *Exp.* 22 millim.

2103 *b*. **Rivula leucosticta,** *Swinh. Trans. Ent. Soc.* 1895, p. 49, pl. i, fig. 1.

♂. Bright rufous. Fore wing with basal white spot on costa; three oblique antemedial white spots; a medial white spot on costa, with a large spot below it at upper angle of cell; a postmedial irregular series of dark specks with white centres, and a submarginal regular series of similar specks. Hind wing fuscous; the cilia rufous.

*Hab.* Khásis; Ceylon. *Exp.* 24 millim.

2114. *E. virginea* = **Eublemma ragusana,** *Freyer, Neue Beitr.* v, p. 92, from Europe, which has precedence.

2130 *a*. **Eublemma rubiginea,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 300.

♂. Dark rufous; head and collar blackish. Fore wing with slightly waved ochreous antemedial line; two black specks on discocellulars; an ochreous postmedial line with white spot on it at costa, highly angled below costa, then straight and oblique; an indistinct ochreous submarginal line angled at vein 3; an ochreous line at base of cilia; four white specks on costa towards apex. Hind wing with straight ochreous medial line and traces of dentate submarginal line; a fine ochreous line at base of cilia.

*Hab.* Bhután. *Exp.* 20 millim.

2130 *b*. **Eublemma reticulata,** n. sp.

♀. Reddish brown suffused with grey. Fore wing with antemedial grey line, highly angled below costa and sending a streak along subcostal nervure to join the grey postmedial line, which is outwardly oblique from costa to vein 6, then curved and running to middle of inner margin; a prominent round black discocellular spot; some pale striæ on costa towards apex, with a dark spot below them; a minutely crenulate grey submarginal line, with black in its sinuation. Hind wing with faint traces of sinuous postmedial line and of submarginal series of black specks.

*Hab.* Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

2130 *c*. **Eublemma coccidiphaga,** n. sp.

White suffused with pale purplish pink; head chestnut. Fore wing with indistinct curved sinuous antemedial, medial, and postmedial lines arising from brown spots on the costa, the medial line enclosing a more or less developed dark discocellular spot;

the apical part of costa brown, with some white specks on it; a minutely dentate white submarginal line excurved at middle, and with some black specks on it below costa. Hind wing with a pale medial line, slightly excurved at middle; both wings with brown marginal line; the cilia purple at tips.

Some specimens have the medial area of both wings suffused with purple-brown except on costal area of fore wing, the discocellular spot white.

*Larva* like the figure of the European *E. scitula*, 'Insect Life,' vi, i, p. 6; colour pinkish or greenish. Feeds on various species of *Coccids* such as *Lecanium* and *Pulvinaria*; living in a case formed of their remains, the case of the young being formed of a single scale to which additions are made as required, and having a four-sided valve at anterior end.

*Hab.* Ceylon (*Green, Pole*). *Exp.* 24 millim. Type in B. M.

2131 *a.* **Eublemma acrapex**, n. sp.

♀. Fuscous, thickly irrorated with grey. Fore wing with the apex produced and acute; a pale sinuous antemedial line angled below costa, then inwardly oblique; a slight pale discocellular mark; a pale postmedial line, very much excurved from costa to vein 2, where it is angled; a dark patch on the costa with three white specks; an indistinct highly dentate submarginal pale line. Hind wing with indistinct sinuous postmedial and highly dentate submarginal lines.

*Hab.* Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

2134 *a.* **Troctoptera bisectalis**, *Wlk. Cat.* xvii, p. 449; *Moore, Lep. Ceyl.* iii, pl. 179, fig. 12; *C. & S.* no. 4403.

Whitish; abdomen slightly tinged with pink and fuscous. Fore wing with pinkish patch near base from cell to inner margin; an antemedial black line outwardly oblique from costa to median nervure, then bent inwards; a prominent inwardly-oblique black medial band, with a speck before it in cell, one beyond it on costa, and two on discocellulars; a reddish patch on inner margin before outer angle; a marginal series of black specks. Hind wing with black antemedial line, with a pink and black patch beyond it and beyond end of cell bearing a white discocellular spot; a sinuous postmedial black line, the area beyond it purplish pink, with a black spot near anal angle; the cilia whitish.

*Hab.* Ceylon. *Exp.* 16 millim.

2134 *b.* **Troctoptera deleta**, *Moore, Lep. Ceyl.* iii, p. 304, pl. 179, fig. 13; *C. & S.* no. 4404.

White; the thorax, abdomen, and fore wing suffused with pale yellow-brown, the last with traces of curved antemedial line; a black speck in cell; an oblique red-brown band across apical area not reaching outer margin, and usually with a dark spot at its

lower end and with traces of a pale line from it to inner margin; a pale line just inside the margin angled at vein 4. Hind wing with the apical and anal areas suffused with yellow-brown; traces of an antemedial brown line; two black discocellular specks; an indistinct sinuous brown postmedial line ending on outer margin above anal angle, and usually with more or less diffused black beyond its lower part.

*Hab.* Ceylon. *Exp.* 12 millim.

Vol. II, p. 344. *Zagira* = **Zurobata**, *Wlk. Cat.* xxxiv, p. 1276. Type, *Z. rorata*, Wlk.

2135 *a.* **Zurobata fissifascia**, n. sp.

♀. Differs from *irrecta* in the thorax being rufous, with a grey band behind the collar; abdomen without grey basal band. Fore wing with the grey costal fascia not extending below the cell, terminating at its end and emitting slight streaks along subcostals and vein 5, met by an oblique streak from the apex; the highly angled postmedial line white, sharply defined, and not sinuous. Hind wing with almost straight medial white line.

*Hab.* Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

2139 *a.* **Zurobata plagiostola**, n. sp.

♀. Differs from *reticulata* in being dark red-brown; head and collar red-brown; abdomen with a white line on 1st segment. Fore wing with slight grey suffusion on basal and costal areas; one subbasal dark speck in cell; the postmedial line prominent, highly excurved beyond cell, and with an oblique white line from it to outer margin, met by a white line with three of the marginal black specks on it below apex. Hind wing with the postmedial grey line prominent; an indistinct waved submarginal line instead of the angled white line.

*Hab.* Bhután (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

2140. *Zagira multiguttata* = **Zurobata rorata**, *Wlk. Cat.* xxxiv, p. 1276; both generic and specific names having priority.

2144 *a.* **Corgatha carnosa**, *Hmpsn. Ill. Het.* ix, p. 150, pl. 169, fig. 9.

♀. Flesh-pink, sparsely irrorated with fuscous; head and collar fulvous. Fore wing with the costa fulvous; a dark spot in cell and one at each angle; several oblique lines from below cell to inner margin; three oblique lines from apex to middle of inner margin, with a pale line between the two outer. Hind wing with these lines continued across it and situated on a more or less prominent band of brown suffusion; each wing with two dark submarginal lines, with a pale line between them; a pale line at base of cilia.

*Hab.* Ceylon. *Exp.* 22 millim.

2144 *b*. **Corgatha costipicta,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 300.

♀. Fuscous; head ferruginous, with white spot on vertex. Fore wing with the costa fuscous and pink, with subbasal, antemedial, postmedial, and apical white spots; both wings with marginal series of dark specks. Underside with traces of curved dark postmedial line on each wing.

*Hab.* Sikhim. *Exp.* 16 millim.

2145. *Corgatha costinotalis*=C. (*Hyria*) quadricostaria, *Wlk. Cat.* xxii, p. 667; which has precedence. Ceylon; Borneo.

2145 *a*. **Corgatha castanea,** n. sp.

Chestnut. Fore wing with indistinct antemedial and medial series of black specks; a postmedial series of black specks conjoined to an indistinct waved line highly angled below costa. Hind wing with ante- and postmedial series of specks; both wings with a prominent marginal series.

One specimen has the head black, some black on abdomen and basal half of costa of fore wing; a large patch on outer margin below apex, and some diffused black markings on anal area of hind wing; some white specks on ante- and postmedial lines of fore wing and postmedial line of hind wing.

*Hab.* Ceylon (*Pole*). *Exp.* 24–26 millim. Type in B. M.

2146 *a*. **Corgatha castaneiceps,** n. sp.

♂. Grey, irrorated with black and with a very slight rufous tinge; head and collar chestnut. Fore wing with black speck in cell; traces of a sinuous antemedial line angled below costa; a discocellular spot formed by black points; a postmedial brown line with pale outer edge excurved from costa to vein 3; a submarginal series of black specks. Hind wing with nearly straight brown medial line and submarginal series of black specks; outer area of both wings browner. Underside slightly suffused with pink.

*Hab.* Ceylon (*Pole*); Borneo. *Exp.* 20 millim. Type in B. M.

## Genus **MIMORUZA.**

Mimoruza, *Hmpsn. Trans. Ent. Soc.* 1895, p. 301.

Type, *M. nigriceps*, Hmpsn.

*Range.* Sikhim.

Differs from *Corgatha* in the fore wing having no areole; veins 8, 9 stalked; 7 from cell. Hind wing with veins 3, 4, and 6, 7 from angles of cell.

### Sect. I. Fore wing with vein 10 from cell.

2147 *a*. **Mimoruza nigriceps,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 301.

♀. Brownish ochreous irrorated with fuscous; head black

abdomen with black band on basal segment. Fore wing slightly snffused wth fuscous; some black specks on costa; an obscure pale spot in end of cell; traces of minutely dentate antemedial, medial, postmedial, and submarginal lines; a marginal series of black specks. Hind wing with two black specks at end of cell; two nearly straight medial lines; some fuscous suffusion on outer area; a marginal series of black specks.

Fig. 270.
*Mimoruza nigriceps*, ♀. 1/1.

*Hab.* Sikhim. *Exp.* 20 millim.

Sect. II. Fore wing with vein 10 stalked with 8, 9.

2147 *b*. **Mimoruza rosealis**, n. sp.

♀. Head, thorax, and abdomen white; palpi and frons fulvous and black; wings white slightly suffused with pink, the outer margin excised below apex and angled at middle. Fore wing with traces of waved brown antemedial and medial lines, the latter with a black patch beyond it at lower angle of cell, and an olive-brown patch on inner area; a pink speck in cell and black speck on discocellulars; a triangular olive-brown patch on costa before apex, and a semicircular patch on apical half of outer margin, a series of black specks on margin. Hind wing pinker, with medial and curved postmedial ill-defined lines; a black speck at lower angle of cell; the margin and cilia rufous.

*Hab.* Bhután (*Dudgeon*). *Exp.* 18 millim. Type in B. M.

2149. **Oruza ruptifascia** = 2154. *O. lycaugesaria*.

2150. *Oruza fratercula* = 2156. *O. pallescens* = O. (*Phibalapteryx*) **hydrocampata**, *Guen. Phal.* ii, p. 438; *C. & S.* no. 3900, which has precedence, = *Acidalia posticaria*, Wlk. Cat. xxxv, p. 1633, from Australia.

2153. *Oruza anisodoides* = O. (*Lycauges*) **postvittata**, *Moore, Lep. Ceyl.* iii, p. 456, pl. 201, fig. 12; *C. & S.* no. 3757.

## Genus TROGACONTIA, nov.

Type, *T. albifrontata*, Moore.

*Range.* Sikhim.

♀. Palpi with the 2nd joint clothed with hair and reaching beyond the short frontal tuft, the 3rd minute; antennæ ciliated. Fore wing with the apex acute; the outer margin excised from apex to vein 4. Veins 7, 8, 9, 10 stalked. Hind wing with the outer margin slightly angled at vein 4; veins 3, 4, and 6, 7 from angle of cell.

2156 *a*. **Trogacontia albifrontata**, *Moore, Lep. Atk.* p. 255; *C. & S.* no. 3989.

Fig. 271.
*Trogacontia albifrontata*, ♀. 1/1.

♀. Pale rufous; the vertex of head white. Fore wing with oblique ante- and postmedial lines; the costa and outer margin bright rufous; three white strigæ on costa beyond middle. Hind wing with medial and marginal rufous lines; cilia of both wings white at tips.

*Hab.* Sikhim. *Exp.* 24 millim.

## Genus MICRACONTIA.

Micracontia, *Hmpsn. Trans. Ent. Soc.* 1895, p. 301.

Type, *M. batisella*, Hmpsn.

*Range.* Ceylon.

Palpi slender, porrect, and reaching beyond the frons; antennæ of male ciliated; tibiæ naked, with the spurs long. Fore wing with the apex somewhat produced; the outer margin rounded; vein 6 from well below upper angle of cell, 7 from the angle; 8, 9, 10 stalked. Hind wing with veins 3 and 4 from angle of cell.

2158 *a*. **Micracontia batisella**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 302.

Fig. 272.—*Micracontia batisella*, ♂. 3/1.

♂. Dull olive-green with a rufous tinge; the vertex of head and base of shaft of antennæ white. Fore wing with white speck on costa near base, large medial and postmedial pure white spots edged with red, and a similar spot at apex with red streak in centre; a large white patch at middle of inner area with red edge and round red centre. Hind wing with indistinct postmedial series of red-edged white specks incurved below vein 2. Both wings with maculate black marginal line and the cilia ferruginous.

*Hab.* Ceylon. *Exp.* 10 millim.

2159 *a*. **Micræschus albinellus**, n. sp.

♀. Differs from *elatarius* in the ground-colour being pure white. Fore wing with a few pink scales; an ill-defined dark fascia from below costa near base to outer angle; the costa towards apex yellow with a dark speck on it; a dark band across apex and dark marginal band with series of crimson specks on its inner edge; cilia yellow, fuscous at middle. Hind wing with two waved crimson and yellow lines; a dark marginal band suffused with silvery blue and with a crimson band on its inner edge; the cilia yellow.

*Hab.* Ceylon (*Green*). *Exp.* 10 millim. Type in B. M.

2174. *Callyna? picta* and the generic name *Calymera* must be referred to **Carea**, after **albopurpurea**, no. 2340, aud will stand as **Carea picta**.

2180 *a*. **Westermannia cœlisigna**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 303.

♀. Differs from *cornucopia* in being grey without piuk tinge. Fore wing with the comet-shaped mark extending up to the costa and its apex terminating on vein 1, its colour much browner, an elongate ochreous reniform spot on it with traces of a sinuous grey line beyond it; the indistinct submarginal line minutely dentate. Hind wing and underside greyer.

*Hab.* Bhután. *Exp.* 30 millim.

2186 *a*. **Brevipecten purpureotinctus**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 303.

♂. Head and thorax purplish fuscous, some of the scales tipped with grey; palpi white in front; abdomen fuscous brown. Fore wing with the basal half rufous brown, slightly tinged with fuscous at base and on inner margin; a fiue oblique slightly sinuous antemedial line; the outer half suffused with purplish fuscous, bounded on inner side by a black-brown triangular mark from costa to lower angle of cell, below which is a crescentic mark with its hollow towards outer margiu, then a curved liue to inner margin; a fine sinuous postmedial line bent inwards at vein 2 and joining the medial markings at inner margin; a truncate triangular black-brown mark on costa before apex. Hind wing fuscous with a rufous tinge; the cilia white in parts; underside with the inner half hoary.

*Hab.* Simla. *Exp.* 32 millim.

2186 *b*. **Brevipecten cosmiodes**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 304.

♀. Reddish brown, irrorated with black and with a slight purple tinge. Fore wing with outwardly oblique antemedial and medial brown lines, with the orbicular between them; the reniform fuscous; fuscous suffusion on costal area from medial line to apex; a postmedial brown line highly angled at vein 5, then inwardly oblique and almost touching the medial line at inner margin; an indistinct waved submarginal line and fine margiual line. Abdomen aud hind wing fuscous, the latter with the cilia greyish. Underside fuscous suffused with grey; both wings with indistinct ante- and postmedial curved lines.

*Hab.* Bhután; Ceylon. *Exp.* 34 millim.

Genus **METAPTYA**, nov.

Type, *M. sericea*, Hmpsn.
*Range.* Ceylon.
Palpi upturned, smooth, slender, and reaching just above vertex

of head; antennæ of male ciliated; thorax with a slight crest behind collar and a long sharp crest on metathorax; abdomen with a large dorsal tuft on 2nd segment; mid tibiæ fringed with hair; hind tibiæ with a slight terminal tuft. Fore wing with the costal and inner margins arched; the outer margin very slightly angled at vein 4; veins 9 and 10 anastomosing with 8, which is given off from 7 to form the areole. Hind wing with vein 5 from just above angle of cell; a fan of large thick scales at anal angle. Retinaculum in male bar-shaped.

2186 *a*. **Metaptya sericea**, n. sp.

♂. Pale grey-brown slightly irrorated with fuscous. Fore wing with curved ante- and postmedial fuscous lines, the latter with pale outer edge; a dark discocellular speck; an indistinct sinuous fuscous submarginal line; the apex with slight rufous tinge. Hind wing paler; the apical area slightly tinged with fuscous; a fuscous mark with white speck on it above the tuft at anal angle.

Fig. 273.—*Metaptya sericea*, ♂. $\frac{1}{1}$.

*Hab.* Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

2187 *a*. **Doranaga soliera**, *Swinh. A. M. N. H.* (6) xv, p. 7.

♂. Differs from *leucospila* in the oblique line being obsolescent except that the portion retracted to costa is white; the apical white patch obsolete and replaced by white suffusion which extends over the whole outer area. Hind wing ochreous, suffused with fuscous on outer area.

*Hab.* Khásis. *Exp.* 24 millim.

## Genus ANODONTODES.

Anodontodes, *Hmpsn. Trans. Ent. Soc.* 1895, p. 302.

Type, *A. rotunda*, Hmpsn.
*Range.* Sikhim.

♀. Palpi slender, porrect, and reaching beyond the frons; antennæ ciliated; eyes naked; thorax and abdomen smoothly scaled; tibiæ hairy. Fore wing with the apex rounded; the inner and outer margins forming a continuous curve. Hind wing with vein 5 from above angle of cell.

2191 *a*. **Anodontodes rotunda**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 302.

♀. Head, thorax, and abdomen chestnut; the tegulæ reddish ochreous. Fore wing reddish ochreous; the costa and apex suffused with fuscous; traces of antemedial, medial, and two

postmedial obliquely curved and slightly waved lines, a dark patch inside the first below the median nervure; the reniform indistinct with a dark patch beyond it; the outer margin fuscous and chestnut, with a waved blue-grey line on it. Hind wing fuscous. Underside suffused with fuscous; each wing with cell-spot and two indistinct postmedial lines.

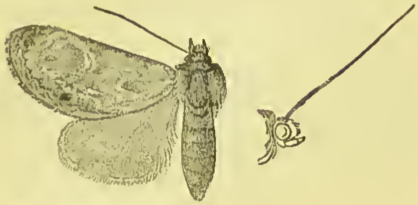
Fig. 274.—*Anodontodes rotunda*, ♀. ⅟.

*Hab.* Sikhim. *Exp.* 46 millim.

2193 *a.* **Homodes fulva**, n. sp.

♂. Fulvous with a purplish tinge. Fore wing with the basal area irrorated with silvery purple scales; silvery purple sinuous antemedial, medial, and postmedial lines, the last excurved beyond cell, and with an indistinct dark line beyond it; a submarginal series of silvery purple spots with a tawny band inside them; a tawny marginal band, with a double series of fine black marginal striæ. Hind wing with straight antemedial and medial bands, the markings of outer area as on fore wing.

*Hab.* Ceylon (*Pole*); Borneo. *Exp.* 24–30 millim. Type in B. M.

2195 *a.* **Gadirtha pulchra**, *Butl. Trans. Ent. Soc.* 1886, p. 412.

Grey; collar with a narrow black line; patagia and metathorax tipped with black; abdomen with black lunule on terminal segment. Fore wing striated with fuscous and variegated with pale olive, and in cell with pale pink; a prominent nearly straight antemedial black line with indistinct irregular line on its outer edge; orbicular large and obscure; reniform large, black-edged, with brown lunule at centre and dark costal mark above it; a prominent black postmedial line from costa to outer margin at vein 1, along which it is retracted, and reaches inner margin beyond middle and almost joined by a short oblique band from costa to vein 7. Hind wing white, the veins towards margin and marginal area, especially at apex, fuscous.

*Hab.* Ceylon; Australia. *Exp.* 52 millim.

2199. **Plotheia celtis**; ♂ differs from the ♀ in the thorax and fore wing being much darker.

2199 *a.* †**Plotheia stigmatophora**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 305.

♂. Differs from *celtis* in the fore wing being without the two raised tufts of scales between postmedial line and outer angle. Hind wing suffused with fuscous brown; the inner area expanding into a large folded lobe containing a tuft of long hair; underside

† Described (Vol. II, p. 370) as the male of *celtis*.

with a large black-brown patch below median nervure from near base to inner margin.

*Hab.* Sikhim. *Exp.* 22 millim.

2203 *a.* **Plotheia nigralba,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 305.

♂. Fuscous black. Fore wing with large white patches at middle of costa and just before apex, enclosing black spots on the costa; indistinct waved subbasal, antemedial, postmedial, and submarginal black lines; a marginal series of grey specks.

*Hab.* Bhután. *Exp.* 26 millim.

Genus **Barasa.**—Sect. II. Fore wing with vein 7 from beyond the areole; male with no tuft of hair from vein 1.

2218 *a.* **Barasa alopha,** n. sp.

Differs from *acronyctoides* in the antemedial line of fore wing being nearer the base and curved; the postmedial line nearer the base, angled inwards below the cell and outwards on vein 1.

*Hab.* Tanna, Bombay; Puttalam, Ceylon (*Pole*). *Exp.* 24 millim. Type in B. M.

2218 *b.* **Barasa costalis,** *Dudgeon, Hmpsn. Trans. Ent. Soc.* 1895, p. 305.

White, slightly tinged with fuscous; palpi with the 2nd joint black at sides. Fore wing with short fuscous subbasal line; fine waved antemedial line; spot in cell; double waved medial line; irregularly dentate postmedial and submarginal lines ending close together near outer angle; a slight fuscous shade inside the margin; black specks on costa at origin of lines. Hind wing pale fuscous; underside of fore wing darker fuscous.

*Hab.* Sikhim; Bhután. *Exp.* 26 millim.

2218 *c.* **Barasa floccifera,** n. sp.

♂. Greyish white suffused with brown. Fore wing irrorated with a few black scales; a short black bar from base of costa; tufts of raised scales on the traces of antemedial line, in end of cell, and on the faint postmedial line, which is incurved from vein 4 to inner margin. Hind wing with some brownish hair on base of inner area; underside with indistinct sinuous postmedial line.

*Hab.* Bhután (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

2222 *a.* **Blenina minor,** n. sp.

♀. Head and thorax white and fuscous; palpi banded with fuscous; abdomen tinged with fuscous. Fore wing white, irrorated with a few black scales; the inner area near base and beyond middle irrorated with olive scales; a quadrate fuscous patch near base of costa; sinuous ante- and postmedial black lines, with a quadrate fuscous patch between them on costa diffused down to vein 1; a black discocellular spot; the postmedial line arising from a fuscous

costal patch; an irregularly sinuous submarginal line; a fuscous patch on outer margin below apex. Hind wing pale fuscous.

*Hab.* Udagama, Ceylon (*Mackwood*). *Exp.* 26 millim. Type in B. M.

2222 *b*. **Blenina xantholopha**, n. sp.

♂. Head and thorax grey irrorated with brown; palpi black at sides; collar edged with black; abdomen pale at base, the medial part fuscous, the extremity grey. Fore wing grey irrorated with brown; small sulphur-yellow tufts below base of median nervure, and on the small black-edged orbicular and at lower end of the large reniform; an obscure waved black subbasal line; a dentate black antemedial line becoming broad below the cell, the area before it tinged with rufous; a highly dentate irregular medial line; a postmedial dentate line excurved beyond cell and crossed by a pale brown line: a very irregularly dentate submarginal black line with white patch on it at costa; the veins streaked with black just inside margin; the costal and apical part of outer area tinged with rufous. Hind wing pale at base, the outer half suffused with black.

*Hab.* Khásis. *Exp.* 38 millim. Type in B. M.

Sect. I. B.—Hind wing of male with the area near anal angle contorted and with tufts of long hair above and below; the veins beyond lower angle of cell and vein 6 fringed above with hair; veins 3, 4 on a long stalk in male, coincident in female.

2222 *c*. **Blenina metalophota**, n. sp.

Differs from *minor* in the abdomen being fuscous and fringed with white towards extremity. Fore wing with no definite fuscous patch between the ante- and postmedial lines, the latter recurved to costa; a marginal series of black specks. Hind wing paler and semihyaline; the tufts of hair in male fuscous and ochreous.

*Hab.* Khásis. *Exp.* 36 millim. Type in B. M.

Vol. II, p. 380. *Argyrothripa*=**Ptisciana**, *Wlk. Cat.* xxxiii, p. 912 (1865).

2225. *Argyrothripa lilacina* = **Ptisciana seminivea**, *Wlk. Cat.* xxxiii, p. 912. Borneo.

2226 *a*. **Ptisciana olivana**, *Swinh. A. M. N. H.* (6) xvii, p. 362.

♂. Dark olive-green; head grey. Fore wing with traces of waved lines on basal area and of a rufous antemedial band from costa to below cell; a white discocellular line; a semicircular dark purplish patch occupying most of outer area, crossed by two curved lines with dark-red suffusion on their outer side, and by a dentate submarginal line with a black speck on it below apex. Abdomen and hind wing black-brown. Underside black-brown; the costa of fore wing pale.

*Hab.* Khásis. *Exp.* 28 millim.

2232 *a*. **Ptisciana niphea**, n. sp.

♀. Head and thorax pure white; abdomen with an ochreous tinge. Fore wing pure white; a small triangular black subbasal spot on costa with traces of a waved line from it, beyond which are short black streaks in and below cell; traces of a medial waved line, with a fuscous patch beyond it on inner margin; a pale olive-green waved line from before middle of costa to beyond lower angle of cell, then becoming erect; a large fuscous postmedial patch from costa to vein 5, with a tridentate black mark beyond it on the irregular obsolescent submarginal line, which emits two black teeth on veins 2 and 3; a black patch on margin below apex. Hind wing tinged with fuscous towards margin.

*Hab*. Ceylon (*Pole*). *Exp*. 20 millim. Type in B. M.

2232 *b*. **Ptisciana lichenosa**, n. sp.

♂. Head and thorax white; palpi with rufous and black scales at sides; collar tinged with green; abdomen fuscous. Fore wing with black-edged green patch at base of costa; the basal half white tinged with green, bounded by a waved oblique black line; the outer half reddish brown irrorated with black; a waved postmedial line angled on vein 6; an obscure waved submarginal line; a white apical patch. Hind wing pale suffused with fuscous, especially on apical area.

*Hab*. Khásis. *Exp*. 24 millim. Type in B. M.

## Genus **DENDROTHRIPA**, nov.

Type, *D. rufipuncta*, Hmpsn.

*Range*. Kángra; Ceylon.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed; antennæ of male ciliated; abdomen without dorsal tufts. Fore wing with the apex rectangular; veins 7, 8, 9, 10 stalked. Hind wing with veins 3, 4 stalked; 5 absent.

2236 *a*. **Dendrothripa rufipuncta**, n. sp.

♂. Greyish brown. Fore wing with two somewhat irregular fine black antemedial lines, the area between them somewhat paler; a rufous spot at lower angle of cell, with a tuft of scales below it and an oblique black striga from costa above vein 2; an indistinct minutely dentate postmedial line excurved beyond cell, bent inwards, and with a rufous spot in its sinus below vein 2; traces of a submargiual minutely-dentate black line; a marginal series of black specks. Hind wing whitish, suffused with brown towards margin; the cilia ochreous.

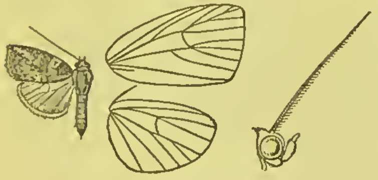

Fig. 275.
*Dendrothripa rufipuncta*, ♂. ½.

*Hab*. Kángra (*Hocking*). *Exp*. 20 millim. Type in B. M.

2236 *b*. **Dendrothripa atrifasciata**, n. sp.

♀. Pale grey-brown. Fore wing with deep black fascia from base of costa along median nervure and expanding at lower angle of cell; indistinct pale ante- and postmedial lines, the latter excurved beyond cell. Hind wing whitish.

*Hab*. Nawalapitiya, Ceylon (*Pole*). *Exp*. 16 millim. Type in B.M.

2242. *Clettharra vitea* must be placed in a new genus :—

Genus **LOPHOTHRIPA**, nov.

Type, *L. vitea*, Swinh.

*Range*. E. Himalayas: Bombay; Ceylon.

Palpi upturned, the 3rd joint long; frons with a tuft of scales; antennæ simple; metathorax and abdomen with large dorsal tufts

Fig. 276.—*Lophothripa vitea*, ♂. $\frac{1}{1}$.

of scales. Fore wing with transverse ridges of scales; veins 8 and 9 anastomosing to form a long areole. Hind wing with veins 3, 4 stalked; 5 present.

Allied to *Chlumetia*; one specimen has the basal area of fore wing ferruginous.

2249. *Clettharra floccifera* is the ♂ of 2237, **C. valida**.

2253 *a*. **Sarrothripa chlorana**, n. sp.

♂. Head and thorax dark green; abdomen black, with three white dorsal tufts towards base. Fore wing dark green irrorated with black, forming a broad diffused medial fascia, the medial part of which is mixed with rufous and white scales; an obscure white subbasal line running out to an acute angle below cell, where it is connected by a streak with the postmedial white line which arises from costa before middle, runs out to an acute angle beyond cell and is then dentate to inner margin; a ferruginous patch at outer angle mixed with white scales on its inner side, and with a minutely dentate line above it just inside the margin, becoming obsolescent towards costa. Hind wing fuscous black.

*Hab*. Sikhim (*Dudgeon*). *Exp*. 24 millim. Type in B. M.

Vol. II, p. 388. Under **Ingura** insert *Callingura*, Butl. Entom. 1894, p. 284, for Sect. II. B.

2258 *a*. **Eutelia picticolor**, n. sp.

Head ochreous; thorax black variegated with green; abdomen black and brown. Fore wing with the basal area black variegated

with green and brown and crossed by subbasal and antemedial brown lines; the outer half green variegated with pinkish, brown, and fuscous, and crossed by several indistinct lines; a prominent claviform black mark filled-in with brown beyond the cell; the postmedial line angled outwards beyond it, and with a white spot on fuscous patch beyond it on vein 3; a blackish patch on costa before apex and on outer margin below apex. Hind wing dark red-brown; the cilia and some marks near anal angle rufous. Underside fuscous and pale ochreous, variegated on outer area with rufous; hind wing with discocellular spot and four waved lines.

*Hab.* Nilgiris; Ceylon (*Pole*). *Exp.*, ♂ 22, ♀ 26 millim. Type in B. M.

2258 *b*. **Eutelia stictoprocta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 304.

♂. Dark red-brown; abdomen below with a white spot on 2nd segment and another on anal flap. Fore wing with the basal area rather darker, except on costal area which is pale; faint traces of numerous waved oblique lines; the elongate reniform with pale edge and dark centre; traces of the triangular mark on costa before apex. Hind wing with the base pale; the outer area fuscous brown, with a pale mark at anal angle. Underside with the black discocellular lunule very prominent; traces of a minutely dentate postmedial line; some dark and pale marks on inner area near anal angle.

*Hab.* Sikhim. *Exp.* 30 millim.

2269 *a*. **Eutelia viridinota**, *Swinh. Trans. Ent. Soc.* 1895, p. 52.

♂. Reddish brown. Fore wing with the reniform pale green and conjoined to a pale spot on costa; traces of numerous waved lines, of which the most distinct are postmedial and submarginal lines, the former angled at vein 5; a pale-edged chocolate-brown spot on costa before apex. Hind wing fuscous with the base pale; slight dark marks on inner margin above anal angle.

*Hab.* Sikhim; Khásis. *Exp.* 34 millim.

2281 *a*. **Risoba flavipennis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 304.

Fore wing with vein 7 from beyond the areole.

♀. Head and thorax orange-yellow; palpi fuscous; antennæ brownish; abdomen pale. Fore wing orange-yellow, very slightly irrorated with dark scales; a dark speck in cell and two on discocellulars; traces of a pale medial line and curved postmedial line; two grey patches on outer margin above and below middle, irrorated and edged with brown. Hind wing yellowish white, with marginal grey-speckled fuscous band not reaching anal angle.

*Hab.* Bhután. *Exp.* 38 millim.

2289. **Stictoptera chalybea**, *Butl.*, will stand for the species, as *S. albodentata* is a synonym of 2294, **Gyrtona hylusalis**.

Vol. II, p. 416. Read **Ectogonitis** for *Goniocraspidum*, which is preoccupied.

2322 *a*. **Churia viridipicta**, n. sp.

Grey-brown; vertex of head and collar yellow-green. Fore wing irrorated with black; ante- and postmedial waved fuscous lines; some yellow-green on base of costa and middle of inner area; irregular patches on postmedial line sending off a spur towards apex; a dark discocellular speck; submarginal and marginal series of black specks. Hind wing fuscous.

*Hab.* Khásis. *Exp.* 32 millim. Type in B. M.

2336 *a*. **Carea albirufa**, n. sp.

♂. Differs from *purpurea* in the head, thorax, and fore wing being bright brick-red; abdomen white suffused with fuscous, the extremity pink. Hind wing pure white; the apical part of margin pink. Underside white; the apical area of both wings pink.

*Hab.* Puttalam, Ceylon (*Pole*). *Exp.* 30 millim. Type in B. M.

2340 *a*. **Carea rectimarginata**, n. sp.

Fore wing with the apex acute, the outer margin straight.

♂. Head and thorax pale brown, with paired rufous dorsal fasciæ; abdomen pale with a fuscous tinge. Fore wing pale brown irrorated with black, and with an olive tinge on costal area; a rufous fascia on inner margin; a black discocellular speck. Hind wing pale, the inner area suffused with fuscous. Underside irrorated with black and with black discocellular spot to each wing; fore wing with subcostal fuscous fascia.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 36 millim. Type in B. M.

P. 427. **Beara** has the antennæ bipectinate in male for half their length.

2357 *a*. **Trisula dudgeoni**, n. sp.

♀. Head, thorax, and abdomen variegated with buff-brown and black scales. Fore wing with the basal area buff, with velvety-black patches on costa and inner area and a streak on median nervure, and bounded by a waved black line; the rest of the wing leaden grey; an ochreous stigma in end of cell; pink suffusion on medial area below cell; a highly dentate black postmedial line on a brown ground, and with an oblique diffused black band inside its costal half; a pale-edged black submarginal line, angled inwards at vein 5. Hind wing fuscous and grey, with traces of discocellular lunule and postmedial and submarginal lines, which are more distinct on underside.

*Hab.* Bhután (*Dudgeon*). *Exp.* 56 millim. Type in B. M.

2363. Insert (syn.) *Catocala pudica*, Moore, 2nd Yarkand Mission, Lep. p. 12; C. & S. no. 2281. Ladákh.

Vol. II, p. 446. Under **Sypna** insert *Daddala*, Wlk. Cat. xxxiii, p. 974 (1865).

2385 *a*. **Sypna quadrisignata**, *Wlk. Cat.* xxxiii, p. 974; *Waterhouse, Aid*, ii, pl. 160, fig. 5.

=*replicata*, Feld., =*apicalis*, Butl., =*plana*, Moore, =*floccosa*, Moore.

Differs from 2386, which must stand as **Sypna lucilla**, Butl., = *obscurata*, Butl., = *renisigna*, Moore, in the antennæ of male being fasciculate and the hind wing having the apex broadly ochreous. The two species have similar range of variation.

2394 *a*. **Hypocala holcona**, *Swinh. A. M. N. H.* (6) xv, p. 9.

♀. Differs from *biarcuata* in the black submarginal line being entirely obsolete.

*Hab.* Andamans. *Exp.* 40 millim.

2402. **Nyctipao hieroglyphica.** The male stridulates loudly in flight, and the abortion of the large glandular scent-organ of the hind wing is probably in connection with the development of this habit.

Before 2405 insert:—

"SECT. III. Male with no glandular patch or abortion of costal area of hind wing."

2406. **Nyctipao gemmans.** Insert (syn.) *Nyctipao ophristigmaris*, Hmpsn. Trans. Ent. Soc. 1895, p. 305.

♂. The white submarginal band of both wings replaced by an obscure ochreous line and bidentate white patch on costa of fore wing.

*Hab.* Bhután. *Exp.* 76 millim.

2408 *a*. **Nyctipao jaintiana**, *Swinh. A. M. N. H.* (6) xvii, p. 362, is the form with the white postmedial line from the Khásis and Jaintia Hills, and is probably a distinct species.

2419 *a*. **Polydesma glenura**, *Swinh. A. M. N. H.* (6) xv, p. 10; *id. Trans. Ent. Soc.* 1895, pl. 1, fig. 4.

♂. Head, thorax, and abdomen yellowish brown, with a few darker brown scales. Fore wing suffused with fuscous brown, leaving the inner area and a diffused oblique submarginal band from apex ochreous brown; somewhat indistinct double waved subbasal and antemedial lines filled-in with ochreous; the orbicular and reniform large and ochreous, the former oblique and oval, the latter with a blackish lunule on it expanding on lower

portion; an indistinct double minutely waved postmedial line excurved beyond cell; some pale specks on costa towards apex; an irregularly dentate and sinuous submarginal pale line, with some dark dentate marks on its inner edge; cilia rufous. Hind wing fuscous, the cilia pale; underside with discocellular spot.

*Hab.* Khásis. *Exp.* 50 millim.

2429 *a.* **Polydesma fraterna,** *Moore,* is a small grey-brown form, which may be a distinct species; male with a rounded lobe on inner margin of fore wing.

*Hab.* Khásis; Bombay; Nilgiris; Ceylon; Australia. *Exp.* 48 millim.

2431 *a.* **Polydesma virens,** *Butl. Trans. Ent. Soc.* 1881, p. 192.

Differs from *biformis* in the thorax being mostly brown. Fore wing with the green areas irrorated with black; an irregularly waved antemedial black line beyond the subbasal red-brown patch, and an irregularly dentate curved line inside the postmedial red-brown markings, which are continuous; the medial line almost obsolete; some subapical black streaks. Hind wing darker at base, with irregularly sinuous postmedial line.

*Hab.* Japan; Sikhim. *Exp.* 48 millim.

2439. **Polydesma terminigera.** Male with tuft of raised scales on fore wing at base of costa and an oblique flap of raised scales from middle of costa across end of cell. Bhután.

2450 *a.* **Melipotis heliothidia,** n. sp.

♂. Head, thorax, and abdomen white; palpi and metathorax tinged with brown; abdomen with dorsal fuscous bands and two pairs of lateral black spots. Fore wing grey irrorated with rufous; the inner margin whitish; sinuous subbasal and antemedial indistinct brown lines, the latter with some blackish marks inside it; orbicular and reniform white-edged, the latter obscured by a diffused blackish patch extending to the costa; a postmedial minutely dentate rufous line incurved at vein 3; a submarginal series of prominent dentate black and white spots and a series of marginal black lunules. Hind wing white, with large black discocellular spot; an irregular submarginal black band interrupted at vein 2 and diffused outwards along the veins to the marginal series of black lunules. Underside of both wings with large black discocellular spots.

*Hab.* Bhuj, Cutch (*Nurse*). *Exp.* 36 millim. Type in B. M.

2453 *a.* **Lyncestis metaleuca,** n. sp.

♂. Differs from *amphix* in the hind wing having no marginal band; a few marginal specks and the veins fuscous towards apex.

*Hab.* Bhuj, Cutch (*Nurse*). *Exp.* 31 millim. Type in B. M.

Vol. II, p. 481. Under **Catephia** insert *Premusia*, Wlk. Cat. xv, p. 1780 (1858).

2464 *a*. **Catephia lichenea**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 306.

♀. Head, thorax, and abdomen pale brown on vertex, blackish at sides. Fore wing verditer-green suffused with leaden grey; the inner area pale brown; the orbicular small and brownish, the reniform indistinct, with dark edge; traces of numerous waved lines, of which the most distinct is the dark dentate postmedial line and the submarginal line which has some dark dentate marks on it; a marginal series of black specks. Hind wing with the base white, the outer two-thirds black; cilia pale brown. Underside with the basal area whitish; hind wing with black discocellular spot.

*Hab.* Bhután. *Exp.* 38 millim.

D. (Premusia.) *Palpi of male with the 3rd joint recurved over head, hollowed-out on inner side, and enclosing tufts of long hair; the tibiæ with immense tufts and inner margin of hind wing clothed with long hair.*

2465 *a*. **Catephia intrahens**, *Wlk. Cat.* xv, p. 1780.

Head and thorax pale brown and black; abdomen pale brown. Fore wing rufous and blackish brown; a basal green spot; a small quadrate black spot in cell with the rufous orbicular beyond it; a broad postmedial blackish band with waved green edges, its outer edge toothed at vein 4, its inner edge with green band inside it, at vein 2 it is retracted to median nervure and expands into a large patch occupying the whole medial area below the cell; a rufous band beyond the blackish band, with traces of a crenulate dark line on its outer edge. Hind wing with the basal half white; the outer half black. Underside with the basal half of wings whitish, with black discocellular spots.

*Hab.* Bhután; Borneo. *Exp.* 46 millim.

2537=1777, see p. 510.

2538. The figure represents a new species from the Khásis, which hardly differs from *polyspila* except in the pectinate antennæ—2538 *a*. **Baniana pectinata**, n. sp.

Vol. II, p. 516. *Borsippa*=**Bocula**, *Guen. Noct.* iii. p. 295 (1852), for Sect. III. Type, *B. caradrinoides*, Guen.

2543 *a*. **Bocula orthosiana**=*punctilineata*=*diffisa* (*Hab.* Assam; Burma; Bombay; Nilgiris), which is represented in the figure, belongs to Group A, and is distinct from the more ochreous **pallens**=*marginata* from Bengal, Bombay, and Ceylon, with the sexual characters in the male as described.

2546 *a*. **Bocula caradrinoides,** *Guen. Noct.* iii, p. 296.

Red-brown. Fore wing with fine oblique slightly sinuous antemedial, medial, and postmedial lines; a black speck in cell, and round discocellular spot sometimes reduced to a black and ochreous speck; a slightly curved ochreous submarginal line with dark outer edge; a prominent marginal series of dark and ochreous specks. Hind wing duller brown; underside with cell-spot.

*Hab.* Ceylon; Java. *Exp.* 34 millim.

2552 *a*. **Plecoptera ferrilineata,** *Swinh. MS.*

♀. Leaden grey; the head and collar ferruginous. Fore wing with the medial area irrorated with black scales; an antemedial slightly oblique minutely dentate ferruginous line; the orbicular and reniform dull ferruginous; an obscure medial line highly angled below costa; a diffused postmedial band with dark specks on its outer edge; a marginal series of black specks. Hind wing fuscous; cilia of both wings brown.

*Hab.* Khásis. *Exp.* 32 millim.

2552 *b*. **Plecoptera holostoma,** *Swinh. A. M. N. H.* (6) xv, p. 10.

Palpi with the 3rd joint long and reaching far above vertex of head.

♂. Differs from *luteiceps* in being grey-brown; head and collar black. Fore wing with the costa ochreous; the ante- and postmedial lines edged with ochreous, the latter further from the reniform and obtusely angled; an indistinct lunulate submarginal line. Hind wing with indistinct medial line; both wings with ochreous line at base of cilia. Underside dark.

*Hab.* Bhután; Khásis. *Exp.* 32 millim.

2591 *a*. **Thermesia sthenoptera,** *Swinh. A. M. N. H.* (6) xv, p. 12.

Antennæ with the bristles arising from serrations.

♂. Purplish fuscous. Fore wing narrow, with ochreous specks in and at end of cell; traces of waved antemedial line and oblique straight medial line; more prominent crenulate postmedial and submarginal lines. Hind wing with crenulate curved medial line on a diffused rufous patch; a submarginal series of white specks. Underside irrorated with white.

*Hab.* Khásis. *Exp.* 30 millim.

2605. Insert **Ischyja ferrifracta,** *Wlk. Journ. Linn. Soc.* vii, p. 177; which has precedence.

2618. **Bematha extensa** is found in Bhután and North Borneo.

2642. Insert (syn.) *Adris sikhimensis*, Butl. A. M. N. H. (6) xv, p. 126; the Sikhim form described in the text.

## Genus BASILODES.

Basilodes, *Guen. Noct.* ii, p. 358 (1852).

Type, *B. pepita*, Guen., from N. America.

*Range.* Nearctic Region; Bombay.

Palpi straight and porrect, the 2nd joint fringed with hair above, the 3rd hairy, reaching well beyond the frons, which has a large rounded prominence hollowed out in front; antennæ thickened and flattened; metathorax with thick tufts of hair; tibiæ slightly hairy; abdomen without dorsal tufts. Fore wing broad; the costa moderately arched; the apex more or less produced; the outer margin excurved at middle; the inner margin lobed near base and slightly at outer angle; the areole very short; vein 5 of each wing from well above angle of cell.

2689 *a*. **Basilodes chrysosticta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 306.

♀. Violaceous grey. Fore wing with short subbasal black line from costa; sinuous antemedial and very highly excurved medial lines, terminating in a pale golden-yellow patch extending from cell to inner margin, irrorated with ferruginous and crossed by the double waved ante- and postmedial lines and the single medial

Fig. 277.—*Basilodes chrysosticta*, ♀. $\frac{1}{1}$.

line; the double waved postmedial line arises from the costa near the apex, below which it crosses a yellow patch and has three white spots on its outer edge, beyond which is a dark submarginal line bent inwards at vein 3, and a single marginal white spot below the apex. Hind wing with a fuscous tinge, whitish on underside.

*Hab.* Bombay. *Exp.* 42 millim.

2697 *a*. **Calesia proxantha**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 306.

Hind wing of male with a hyaline streak between the bases of veins 2 and 3, which are bent, and vein 3 shortly stalked with 4.

♂. Head and collar orange; the 3rd joint of palpi black; antennæ fuscous; legs orange, with black spots at end of tibiæ; thorax and wings uniform silky mouse-colour; abdomen scarlet.

*Hab.* Kalewa, Upper Burma. *Exp.* 36 millim.

2706 *a*. **Mecodina ferrugineiceps**, n. sp.

♂. Very dark brown irrorated with blue-grey; head and collar ferruginous. Fore wing with the base of costal area ferruginous; traces of an antemedial line; a white discocellular line; a sinuous white postmedial line bent inwards to costa and with a non-irrorated band inside it; a dark quadrate patch on costa before apex with ferruginous spot below it. Hind wing with sinuous white medial line; a lunulate rufous submarginal line angled at middle.

*Hab*. Bhután, 2500 feet (*Dudgeon*). *Exp*. 30 millim. Type in B. M.

Vol. III, p. 8. The figure 4 represents 2725, **Zethes perturbans**, *Wlk.*

2720. Insert (syn.) *Sanys flexus*, Moore, Lep. Atk. p. 175; C. & S. no. 2764.

2722 = **Saraca pannosa**, *Moore, Lep. Atk.* p. 182; *C. & S.* no. 2724.

2723 *a*. **Zethes apicinota**, n. sp.

Dark brown and grey. sometimes with a slight rufous tinge. Fore wing with an indistinct waved antemedial line; a postmedial pale line sharply angled beyond cell, then incurved and with diffused fuscous on its inner edge; a pale-edged quadrate dark patch on costa before apex, with three white costal specks on it and with a pale-edged black speck below it. Hind wing with discocellular speck; a pale medial line with a diffused fuscous band on its inner edge and series of pale-edged dentate black marks beyond it, the one above middle large and triangular; both wings with dark marginal line. Underside of both wings with traces of medial and submarginal lines and a minutely waved grey medial line.

*Hab*. Bhután (*Dudgeon*); Borneo; Java. *Exp*. 26 millim. Type in B. M.

2725. Omit *Saraca pannosa*, Moore, from synonymy.

2734. Refer **Z. costalis** to beginning of **Egnasia**.

2739 *a*. **Zethes rufipennis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 307.

♂. Ferruginous red; palpi dark; a dark tuft on 1st abdominal segment. Fore wing with slightly darker subbasal band edged by waved pale and dark lines; an irregularly dentate dark antemedial line; the reniform large, ochreous and with dark edges: a double postmedial line highly angled on vein 4 and sending a dark streak from that point to the angle of outer margin, a grey patch

below costa aud iudistinct crenulato liue beyond the double lines; a series of dark specks just iuside the margin. Hind wing with discocellular black speck; a double dark postmedial line, with indistinct irregularly crenulate line beyoud it; a series of dark specks just inside the margin. Underside greyish.

*Hab.* Bhután. *Exp.* 40 millim.

2742. **Z. ocellata.** Refer to **Egnasia** next 2751, **E. tripuncta.**

2744 *a*. **Egnasia ruficeps,** n. sp.

♂. Palpi bright rufous; vertex of head pale; thorax and abdomen grey-brown, the anal tuft ochreous. Fore wing grey-brown and fuscous irrorated with black; slight rufous suffusion near base; an oblique bright rufous sinuous antemedial line from below costa; traces of a sinuous fuscous medial line; au obscure brown and black discocellular lunule; a large pale-edged dark postmedial triangular patch with three pale costal specks on it, the irregularly dentate oblique postmedial line from its apex to inner margin, and the submarginal line from its outer side and angled on vein 4; the inner half of outer area suffused with rufous; a series of dark marginal specks inside apical part of margin and a fine crenulate margiual line. Hind wing rufous irrorated with black; an indistinct dentate postmedial line and two black spots near anal angle.

*Hab.* Ceylon (*Pole*). *Exp.* 38 millim. Type in B. M.

Vol. III, p. 19. **Hyperlopha** has vein 5 of hiud wing from near lower angle of cell; and **H. compactilis** has a tuft on inner side of 3rd joint of palpus.

2761. Omit *Sanys flexus,* Moore, irom synonymy. See 2720, p. 536.

2763 *a*. **Capnodes caustiplaga,** n. sp.

♀. Grey-brown suffused with piuk. Fore wing with minute dark specks in cell and on discocellulars; traces of a sinuous brown postmedial line; a submarginal line highly angled below costa, then double and ending at outer augle, the area beyond it fiery red with two dentate yellow marks near outer angle; some dark specks just inside margin. Hind wiug similar, but the red patch small.

*Hab.* Bhután (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

2782 *a*. **Raparna uncifera,** n. sp.

♂. Head and collar fuscous brown; thorax purplish grey; abdomen pale brown. Fore wing dull purple; an oblique black subbasal band from subcostals to inner margin, with a hook on outer side; an indistinct discocellular band; traces of a sinuous

postmedial line represented by ochreous scales. Hind wing fuscous brown.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 24 millim. Type in B. M.

2782 *b*. **Raparna crenulata**, n. sp.

Both wings with the outer margin crenulate and produced to a point at vein 4.

♀. Grey-brown; head and collar chestnut. Fore wing with some dark specks on basal area; an ill-defined double medial line angled below costa; a waved postmedial line with series of dark specks beyond it. Hind wing with dark discocellular speck; double sinuous ferruginous medial line; a waved postmedial line with series of dark specks beyond it; a prominent black patch at anal angle.

*Hab.* Bhután (*Dudgeon*); Borneo (*Wallace*). *Exp.* 26 millim. Type in B. M.

Genus **PROGONIA**, nov.

Type, *P. reniferalis*, Hmpsn.

*Range.* Ceylon.

Palpi upturned, the 2nd joint reaching above vertex of head, the 3rd long with a tuft on inner side, in male sharply bent over the head; antennæ with long bristles and cilia; fore tibia covered by a sheath containing masses of flocculent scales. Fore wing with veins 3, 4, 5 from close to angle of cell; 6 from below upper angle; 7, 8, 9, 10 stalked. Hind wing with veins 3, 4 stalked; 5 from angle of cell; 6, 7 stalked.

2793 *a*. **Progonia reniferalis**, n. sp.

♂. Grey mottled with brown. Fore wing with subbasal black costal striga; a highly crenulate antemedial line arising from an oblique costal striga; an oblique dark chocolate reniform spot with ochreous centre and traces of fuscous line from it to inner margin; a dentate postmedial line, very oblique and straight from costa to vein 6; an irregularly dentate pale submarginal line; a marginal series of dark specks. Hind wing paler; with indistinct postmedial line angled at vein 2; traces of a pale waved submarginal line; a marginal dark line, and ochreous line at base of cilia.

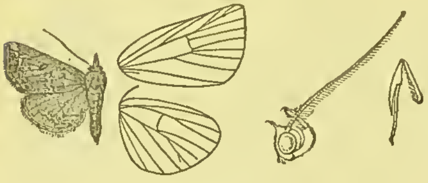

Fig. 278.
*Progonia reniferalis*, ♂. ½.

♀ with the reniform mark obsolescent.

*Hab.* Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

2800. Omit *Egnasia nubifascia* and Ceylon and insert under 2804, **Adrapsa scopigera**.

2834 *a*. **Mastigophorus prunalis**, n. sp.

♂. Reddish brown slightly suffused with purple; palpi fuscous slightly mottled with grey. Fore wing with indistinct waved antemedial and medial lines; a white speck in cell and large fuscous speckled ochreous discocellular patch; a double postmedial sinuous line angled below costa and excurved round lower angle of cell. Hind wing fuscous brown; both wings with sinuous submarginal series of white specks. Underside fuscous, with submarginal series of pale specks.

♀. Fore wing with two discocellular black specks replacing the ochreous patch.

*Hab.* Puttalam, Ceylon (*Pole*). *Exp.* 36 millim. Type in B. M.

2840 *a*. **Falcimala lativitta**, *Moore, P. Z. S.* 1883, p. 29; *C. & S.* no. 4297.

♀. Palpi with the 2nd joint much more thickly clothed on both sides with long hair. Pale yellowish brown; palpi red-brown at base; abdomen with the dorsal tuft dark. Fore wing irrorated with red-brown; two brown subbasal spots; a curved rufous antemedial line bent outwards below costa; the medial area brown, bounded by a pale discocellular lunule with two black specks on its outer edge and a curved rufous line from it to inner margin, a diffused rufous sinuous submarginal line arising from a brown patch on costa; a marginal series of dark specks; the cilia rufous. Hind wing whitish; underside with discocellular spot.

*Hab.* Sikhim. *Exp.* 24 millim.

2840 *b*. **Falcimala ochrealis**, n. sp.

♂. Head, thorax, and abdomen bright ochreous and black. Fore wing bright ochreous irrorated with black; a black patch at base of costa followed by a black streak; an oblique black wedge-shaped mark from middle of costa to beyond lower angle of cell, and embracing a discocellular black mark; some black specks on costa towards apex; the marginal area black, narrowing to apex and below middle; a marginal series of ochreous specks. Hind wing fuscous black.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 16 millim. Type in B. M.

2843 *a*. **Nagadeba pictalis**, n. sp.

♀. Chestnut-brown; head, thorax, and abdomen variegated with white. Fore wing with the basal area variegated with white; traces of a waved antemedial line and of a medial line angled on median nervure; two dark discocellular specks; some white specks on costa towards apex; some white suffusion and three black specks below apex; a crenulate white marginal line. Hind wing with the basal area suffused with fuscous; traces of a waved white medial line; a dentate grey postmedial line on a deep black irregular band; a crenulate white marginal line.

*Hab.* Bhután (*Dudgeon*). *Exp.* 22 millim. Type in B. M.

## Genus NICEVILLEA.

Nicevillea, *Hmpsn. Trans. Ent. Soc.* 1895, p. 307.

Type, *N epiplemoides*, Hmpsn.
*Range.* Burma.

♀. Palpi upturned and smoothly scaled, the 2nd joint nearly straight except at base and reaching above vertex of head, the 3rd long; antennæ with cilia and fine bristles; tibiæ with medial and distal tufts of long scales and a similar tuft at end of 1st tarsal joint. Fore wing with the costa nearly straight; the apex produced and acute; the outer margin minutely crenulate and highly angled at vein 4. Hind wing with the outer margin nearly straight and minutely crenulate from the apex to vein 3, and from thence to anal angle extremely truncate and with two excisions; veins 3, 4, 5 from close to lower angle of cell; 6, 7 from upper angle.

2845 *a.* **Nicevillea epiplemoides**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 307.

♀. Brownish grey, irrorated with brown scales; the tufts on legs grey and brown. Fore wing with some black specks on costa and another in cell; a fine brown line from origin of vein 2 to inner margin near base; a postmedial oblique fine brown line; a subapical black spot and another on inner margin near outer

Fig. 279.—*Nicevillea epiplemoides*, ♀. $\frac{1}{1}$.

angle. Hind wing with speck in cell; a fine oblique medial brown line; two obscure yellowish lunulate spots with fuscous inner edge between veins 2 and 4 above a waved fuscous line from anal angle to vein 5; both wings with traces of brown marginal line. Underside with traces of curved dark medial line and submarginal specks to fore wing; hind wing with a dark spot on costa towards apex.

*Hab.* Dawnat Range, Tenasserim. *Exp.* 44 millim.

2848. *Hydrillodes transversalis*=2879. **Catada vagalis.**

Vol. III, p. 56. Under **Nodaria** insert *Lysimelia*, Wlk. Cat. xvi, p. 201 (1858); and *Anitha*, Wlk. Cat. xxxiv, p. 1206 (1865).

2855 *a*. **Nodaria mundiferalis**, *Wlk. Cat.* xxxiv, p. 1206.

Yellow; head and thorax tinged with fulvous. Fore wing with some dark rufous at base of costa; two black specks at the angles of cell; traces of a postmedial series of dark specks on the veins; a submarginal series of small white lunulate spots; the marginal area suffused with dark rufous; the cilia fuscous. Hind wing whitish in male, fuscous in female; traces of a discocellular lunule and postmedial line angled at vein 2; the marginal area suffused with brown. Underside suffused and irrorated with brown; hind wing with discocellular lunule, crenulate postmedial line, and submarginal series of white specks.

*Hab.* Bhután; Borneo. *Exp.* 22 millim.

2856. Insert (syn.) *Herminia dolosa*, Butl. A. M. N. H. (5) iv, p. 446.

2857 *a*. **Nodaria grisealis**, *Schiff. Wien. Verz.* p. 120.

Differs from *erecta* in the submarginal line of fore wing being bent outwards to the apex.

*Hab.* Europe; Japan; Sikhim. *Exp.* 24–26 millim.

2858 *a*. **Nodaria erythropoda**, n. sp.

♂. Differs from *erecta* in being ochreous; the tufts on fore tibia orange-red. Fore wing with the antemedial line extremely oblique; the postmedial line more oblique and angled beyond the cell.

*Hab.* Bhután (*Dudgeon*). *Exp.* 36 millim. Type in B. M.

2870. *Nodaria lysimeloides* = **N. neleusalis**, *Wlk. Cat.* xvi, p. 201. Borneo.

Genus **STHENISTIS**, nov.

Type, *S. gyrtoniformis*, Hmpsn.

*Range.* Ceylon.

Palpi upturned, the 2nd joint thick, the 2nd and 3rd curved over vertex of head; antennæ of male ciliated; abdomen long. Fore wing narrow in male; vein 6 from below angle of cell, 7 & 8 stalked; 9, 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 from middle of discocellulars; 6, 7 stalked.

2874 *a*. **Sthenistis gyrtoniformis**, n. sp.

♂. Head and thorax pale and dark brown, abdomen paler. Fore wing pale brown, thickly marked with short dark brown streaks in the interspaces, the inner margin paler, also the outer area except towards costa; traces of an antemedial line appearing as a wedge-shaped mark on inner margin; a dark speck at lower angle of cell, with an obscure oblique line from it to inner margin. Hind wing fuscous brown.

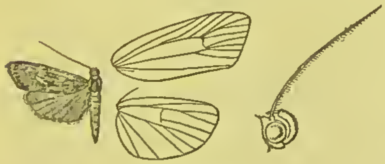

Fig. 280.
*Sthenistis gyrtoniformis*, ♂. $\frac{1}{1}$.

♀. Fore wing broader, with the inner and outer areas prominently paler.

*Hab.* Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

Vol. III, p. 61. Under **Catada** insert *Micreremites*, Warr. A. M. N. H. (6) viii, p. 66.

2875 *a.* **Catada fatua**, *Warr. A. M. N. H.* (6) viii, p. 65.

Pale greyish suffused with fuscous; palpi black at base. Fore wing with the outer margin excised below apex; traces of a subbasal line; the medial area black, bounded by sinuous ante- and postmedial lines, the latter excurved and enclosing a black spot beyond cell, then incurved; pale submarginal specks on costa and above middle. Hind wing with the outer margin excised below apex; a sinuous dark medial line and pale sinuous submarginal line, becoming obsolescent on the pale costal area. Underside with the basal half of wings suffused with black.

*Hab.* Khásis. *Exp.* 18 millim.

2879. Insert (syn.) *Hydrillodes transversalis*, Moore, P. Z. S. 1877, p. 613; C. & S. no. 2974.

Genus **HÆMATOSTICTA**, nov.

Type, *H. sanguiguttata*, Hmpsn.

*Range.* Ceylon.

Palpi upturned and reaching vertex of head, the 2nd joint fringed with long scales in front, the 3rd naked and acute; antennæ of male minutely ciliated; tibiæ with the spurs long. Fore wing with the apex rounded; vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 8, 9, 10 stalked from before end of cell, with a minute areole at their base; 11 absent. Hind wing with veins 3, 4 stalked; 5 from near middle of discocellulars; 6, 7 stalked.

2886 *a.* **Hæmatosticta sanguiguttata**, n. sp.

Pale olive-brown; head grey irrorated with black; thorax and abdomen with paired blood-red spots. Fore wing with the costa grey, irrorated and spotted with black; both wings with subbasal, antemedial, medial, postmedial, and submarginal series of blood-red spots, the postmedial excurved beyond cell of fore wing; each wing with a discocellular red and black spot, most prominent on hind wing; fore wing with fuscous and grey marginal patches at and below apex and above outer angle; both wings with marginal series of black striæ.

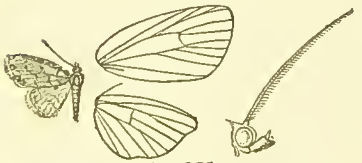

Fig. 281.
*Hæmatosticta sanguiguttata*, ♂. $\frac{3}{2}$.

*Hab.* Ceylon (*Green*). *Exp.* 12 millim. Type in B. M.

2887 *a*. Aræopterum fasciale,

♂. Head and collar white; palpi black; thorax and abdomen fuscous. Fore wing pale fuscous; the costal area suffused with white; a dark mark with two white specks on it on costa before apex; an oblique white postmedial line and indistinct waved submarginal line. Hind wing pale fuscous, with black-edged medial band with whitish suffusion beyond it; an indistinct submarginal white line.

*Hab*. Ceylon (*Green*). *Exp*. 12 millim. Type in B. M.

## Genus PTYORHYNCHA.

Ptyorhyncha, *Hmpsn. Trans. Ent. Soc.* 1895, p. 308.

Type, *P. argyresthis*, Hmpsn.

*Range*. Bhután.

♀. Palpi with the 2nd joint straight, oblique and fringed with hair above, the 3rd upturned, with a very large tuft on inner side; a slight frontal tuft; antennæ of female nearly simple; tibiæ hairy. Fore wing with the costa much arched; the outer margin excised below apex, produced to a hook at vein 4, then excised to outer angle; vein 8 given off from 7 and anastomosing with 9, which is given off from 10 to form the areole. Hind wing with the anal angle truncate; vein 5 from lower angle of cell.

2895 *a*. **Ptyorhyncha argyresthis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 308.

♀. Deep chestnut. Fore wing thickly covered with fine striæ, the basal two-thirds with a silvery sheen except the costal area and a sinuous medial band, the outer edge of this area sinuous; a patch of bright silvery suffusion on outer area above middle connected

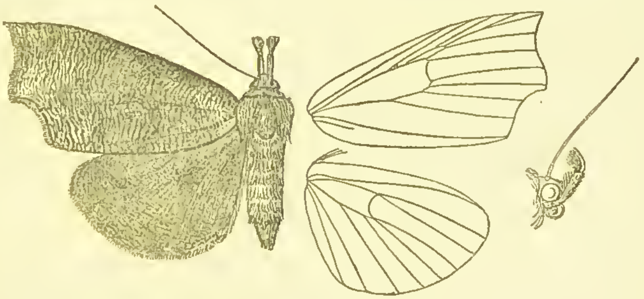

Fig. 282.—*Ptyorhyncha argyresthis*, ♀. $\frac{1}{1}$.

with the outer angle by a sinuous band; a marginal series of silvery striæ. Hind wing reddish brown suffused with fuscous, and with numerous fine dark striæ on outer area; a marginal series of silver specks; cilia of both wings red at tips.

*Hab*. Bhután. *Exp*. 66 millim.

Vol. III, p. 68. Read **Ectogonia** for *Camptochilus* (præocc.).

2904 *a*. **Marapana rectilineata**, n. sp.

♀. Palpi oblique, the 3rd joint naked. Pale ochreous suffused with brown and irrorated with fuscous and pink; wings slightly tinged with pink. Fore wing with indistinct straight brown antemedial line; a black speck in cell; a waved medial line excurved at middle; an oblique striga at upper angle of cell; both wings with a double straight postmedial line highly angled below costa of fore wing; an indistinct irregularly waved submarginal line; a marginal series of black specks. Hind wing with indistinct waved antemedial line and black speck at lower angle of cell.

*Hab*. Puttalam, Ceylon (*Pole*). *Exp*. 24 millim. Type in B. M.

2928 *a*. **Hypena subvittalis**, *Wlk. Cat.* xxxiv, p. 1143.

Dark red-brown. Fore wing irrorated with grey; traces of a ferruginous antemedial line outwardly oblique from costa to above vein 1, where it is angled; an indistinct medial ferruginous line running out to a sharp angle at lower end of cell; the tufts of raised scales at middle and end of cell usually with some black scales round them, and often with a black fascia between them and beyond them curved up to apex. Abdomen and hind wing fuscous.

*Hab*. Ceylon; Java; Australia. *Exp*. 22 millim.

2936 *a*. **Hypena acypera**, n. sp.

Palpi with the 2nd joint long, the 3rd upturned, long, naked except for a triangular tuft of scales at middle.

♂. Pale ochreous brown irrorated with fuscous; palpi blackish at sides and with the tuft on 3rd joint black. Fore wing with small tufts of black and white scales at middle and end of cell; an oblique line from median nervure to inner margin near base; an oblique postmedial whitish line with dark inner edge; a sinuous submarginal line joined by an oblique streak from apex, and with a white spot and dark patch above middle.

♀ with barely a trace of the submarginal markings.

*Hab*. Bhután (*Dudgeon*). *Exp*. 24 millim. Type in B. M.

2938. *Hypena divaricata* = 2927. **H. lignealis**.

2941 *a*. **Hypena nocturnalis**, *Swinh. A. M. N. H.* (6) xvii, p. 363.

♂. Differs from *tenebralis* in being fuscous irrorated with grey and without the rufous tinge. Fore wing with the obliquely sinuous antemedial line more distinct; the postmedial line with pale outer edge and straight except for a slight bend inwards at lower angle of cell; a sinuous submarginal line in continuation of the black specks below costa. Underside of fore wing with two subapical black and white specks.

*Hab*. Khásis. *Exp*. 36 millim.

2942. For *Hypena dentilineata* read **H. denticulata.**

2953. *Hypena castanealis* is a variety of 2952. **H. divisalis.**

2961. *Hypena modesta*=2976. **H. thermesialis.**

2979. **Hypena triangularis** is a variety of 2977, *H. occata*, which is the common and widespread form, whilst *absimilis* and *triangularis* are varieties found on the Khásis; the last name has precedence for the species.

## Genus **HARITALOPHA.**

Haritalopha, *Hmpsn. Trans. Ent. Soc.* 1895, p. 309.

Type, *H. biparticolor*, Hmpsn.
*Range.* Bhután.

Palpi oblique and clothed with hair, the 2nd joint reaching the apex of the sharp frontal tuft, the 3rd long; antennæ ciliated; thorax with a sharp triangular tuft above; abdomen with large conical tuft on 2nd segment followed by smaller tufts. Fore wing with the apex acute and produced; the outer margin excised from apex to vein 4. Hind wing with vein 5 from middle of discocellulars; 3, 4 and 6, 7 from angles of cell.

2988 *a*. **Haritalopha biparticolor,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 309.

♂. Head and thorax red-brown with a purplish tinge; abdomen fuscous. Fore wing purplish red-brown; traces of a curved antemedial line; a dark line on discocellulars; a rufous postmedial line angled at vein 5, then sharply recurved, the area beyond it greyish

Fig. 283.—*Haritalopha biparticolor*, ♂. $\frac{1}{1}$.

fuscous with a brown mark at middle of outer margin; cilia brown. Hind wing fuscous, with a pale streak with dark mark above it above anal angle. Underside grey; an indistinct postmedial line recurved below vein 5 on fore wing, evenly curved on hind wing.
*Hab.* Bhután. *Exp.* 46 millim.

Vol. III, p. 95. Under **Chusaris** insert *Tipasa*, Wlk. Cat. xxvii, p. 129 (1863).

2996 *a*. **Chusaris nebulosella**, *Wlk. Cat.* xxvii, p. 129.

♂. Head, thorax, abdomen, and fore wing pale ochreous irrorated with olive-brown and fuscous. Fore wing with traces of antemedial line; a white spot at lower angle of cell; a double curved postmedial line; the outer area slightly suffused with pink; an indistinct pale submarginal line with some black marks on it at middle and near outer angle; a marginal series of black specks. Hind wing bright pink. Underside of fore wing suffused with pink; hind wing ochreous, with pink discocellular spot and irroration.

*Hab.* Ceylon; Borneo. *Exp.* 18 millim.

3002 *a*. **Chusaris aurantilineata**, n. sp.

♀. Black. Fore wing with orange and black subbasal speck below costa; some orange specks on costa; a minutely waved antemedial orange line with black spot on it below cell; a black discocellular spot; a postmedial orange line slightly angled at lower end of cell; an indistinct sinuous orange submarginal line angled outwards at middle; a marginal series of black and orange specks; abdomen and hind wing fuscous.

*Hab.* Ceylon (*Pole*). *Exp.* 21 millim. Type in B. M.

3006 *a*. **Arrade vitellialis**, *Wlk. Cat.* xvii, p. 386; *C. & S.* no. 4295.

♂. Fuscous. Fore wing with the basal half brown, bounded by an inwardly oblique pale line with the area beyond it fuscous black, becoming brown again towards the blackish marginal band, which has a pale waved line on its inner edge.

*Hab.* Moulmein. *Exp.* 24 millim.

3008 *a*. **Hypenagonia leucosticta**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 309.

♂. Differs from *vexataria* in the palpi being longer, the 2nd joint more thickly fringed with long hair, the 3rd long, slender and upturned; abdomen banded with fuscous and white. Fore wing with more prominent lines and diffused bands; two white-edged black specks on discocellulars; a prominent short white subapical streak. Hind wing with much more prominent black lines and diffused fuscous bands which have no rufous tinge; a submarginal black and white line to both wings.

*Hab.* Bhután. *Exp.* 16 millim.

### Genus **PROLOPHOTA**, nov.

Type, *P. trigonifera*, Hmpsn.

*Range.* Ceylon.

Palpi porrect, extending about twice the length of head, the 2nd joint fringed with long hair above, the 3rd upturned and triangularly scaled; frons with a tuft of hair; antennæ of male ciliated; mid tibiæ slightly fringed with hair; hind tibiæ with a slight tuft at extremity and slight tufts at lower ends of the tarsal joints. Fore wing with the apex acute; the outer margin excised to vein 4,

where it is angled; veins 8, 9, 10 stalked. Hind wing with the outer margin angled at vein 4; veins 3, 4 from angle of cell; 5 from just above angle; 6, 7 from upper angle.

3008 *b*. **Prolophota trigonifera**, n. sp.

♂. Pale ochreous slightly irrorated with fuscous; palpi fulvous; wings with a few black specks. Fore wing with indistinct waved antemedial and medial lines, the former arising from a black speck on costa, the latter from a small triangular spot; an

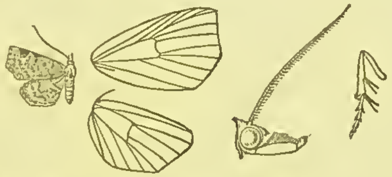

Fig. 284.—*Prolophota trigonifera*, ♂. $\frac{1}{1}$.

indistinct annulus in cell; a dentate postmedial line excurved beyond cell; a large dark fulvous triangular patch on costa beyond middle, with three white specks on it; traces of a dentate submarginal line with slight fuscous suffusion beyond it; a marginal series of black specks. Hind wing with nearly straight antemedial line; two indistinct waved postmedial lines; the margin suffused with fuscous; a marginal series of black specks.

*Hab.* Hambantota, Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

## URANIIDÆ.

3025. *Pseudomicronia cœlata*=**Micronia oppositata**, *Snell. Tijds. v. Ent.* xxiv, p. 84, pl. 9, fig. 6.

## EPIPLEMIDÆ.

3041 *a*. **Epiplema inhians**, *Warr. A. M. N. H.* (6) xvii, p. 214.

Differs from *irrorata* in the general colour being dark brown. Fore wing with the apical area rufous; the postmedial line very acutely angled on vein 4 of both wings, defined by black on inner side on fore wing and on outer side of hind wing; hind wing with an elongate white mark in cell.

*Hab.* Sikhim; Khásis. *Exp.* 18 millim.

3042 *a*. **Epiplema albipunctata**, *Warr. A. M. N. H.* (6) xvii, p. 212.

♀. Dark brown with a leaden tinge. Fore wing with ante- and postmedial lines highly excurved and defined on inner side by black below costa, the latter with two pale specks above inner margin; a dark subapical speck and incomplete lunule at the excision. Hind wing with incomplete dark antemedial line; a pale postmedial line defined by brown, produced to an acute angle on

vein 4 and with dark marks on its inner side below the angle; three white subapical specks and two minute streaks with dark spots below them at the lower tail.

*Hab.* Khásis. *Exp.* 26 millim.

3051 *a.* **Epiplema ochreofumosa,** *Warr. A. M.N. H.* (6) xvii, p. 215.

♂. Head and thorax fuscous brown, the vertex of head white; abdomen yellowish white, the base dark. Fore wing pale, suffused and irrorated with purplish fuscous, the area near postmedial line and the outer area except at apex least suffused; a ferruginous discocellular spot; a dark postmedial line with ferruginous on its inner edge, oblique from costa to vein 4 where it is angled; a submarginal series of brown striæ. Hind wing yellowish white, slightly irrorated and striated with brown; the base brown; a postmedial rufous line running out to a rounded projection near margin on vein 4, with ferruginous suffusion beyond the excurved part and on tail, which has a minute white streak and black speck; a dark marginal line between the tails.

*Hab.* Khásis. *Exp.* 28 millim.

3053 *a.* **Epiplema sponsa,** *Swinh. A. M. N. H.* (6) xvi, p. 293.

♀. Head, thorax, and basal segments of abdomen grey and fuscous, the last with the terminal segments darker; wings grey, striated with fuscous, the basal half of fore wing and whole of hind wing suffused with pale yellow-brown. Fore wing with waved ante- and postmedial lines approaching each other at middle and filled-in with dark grey except at middle; a black discocellular spot; some grey suffusion beyond the medial band and three obliquely placed submarginal medial spots on a grey patch. Hind wing with grey suffusion from base below cell to outer margin; an indistinct antemedial line angled outwards below the prominent black discocellular spot; four lunules on medial part of outer margin, the two upper black filled-in with rufous.

*Hab.* Khásis. *Exp.* 24 millim.

3054. Omit from synonymy *Erosia lanigera*, Hmpsn., which is the female of 3064, **Dirades unicauda,** *Hmpsn.*, p. 132.

3061 *a.* **Epiplema argentisparsa,** n. sp.

Fore wing with the outer margin crenulate. Hind wing with the costa excised and with tufts before and beyond the excision; the outer margin with a tail at vein 4 and points at veins 2 and 7.

♀. Very dark leaden grey irrorated with silvery blue; abdomen with some rufous on dorsum; wings with the lines rufous and black. Fore wing with curved antemedial and waved postmedial lines; a sinuous submarginal line from costa to vein 2. Hind wing with antemedial maculate line; a postmedial line angled at vein 4 and with black and rufous marks on its inner edge; a rufous and black lunulate marginal band.

*Hab.* Bhután (*Dudgeon*). *Exp.* 28 millim. Type in B. M.

SECT. III. Antennæ of male serrate and fasciculate; fore wing with the outer margin evenly rounded; hind wing with a fold on inner area containing a tuft of hair.

3063 *a*. **Epiplema scopocera**, n. sp.

Differs from *tenebrosa* in the submarginal line of fore wing being much more irregular and bent inwards between veins 5 and 6; hind wing with the postmedial line straight and oblique from costa to vein 4 where it is sharply angled; the lunulate marginal marks more prominent and marked with chestnut between the tails. Underside of hind wing white in male.

*Hab*. Ceylon (*Green*). *Exp*. 18–22 millim. Type in B. M.

SECT. IV. Antennæ of male bipectinated; outer margin of fore wing evenly curved, of hind wing produced to points at veins 7 and 4.

A. *Fore wing with no fovea; hind wing with no lobe at base of costa.*

3063 *b*. **Epiplema nigrifrons**, n. sp.

♂. Whitish irrorated with fuscous brown; frons black; antennæ with the branches blackish; wings slightly striated with brown. Fore wing with prominent dark striæ on outer half of costa; an obsolescent postmedial ferruginous line highly excurved below costa, the area beyond it more striated and suffused with brown; a dark band just inside the margin from below apex to vein 4. Hind wing more uniformly irrorated and striated; an indistinct subbasal line; a discocellular line and black speck at lower angle of cell; a postmedial line double from costa to vein 4 where it is strongly angled, then recurved and with a rufous band on its inner edge; a brown and black marginal band between the points and a spot at vein 4; underside white.

*Hab*. Toungoo, Burma (*De Nicéville*). *Exp*. 30 millim. Type in B. M.

B. *Fore wing of male with a fovea below base of cell; hind wing with a lobe at base of costa articulating with the retinaculum as well as the frenulum.*

3063 *c*. **Epiplema pectinicornis**, *Dudgeon, MS.*

Grey-brown; vertex of head white; wings with numerous dark striæ. Fore wing with postmedial rufous line angled beyond lower angle of cell; a submarginal lunulate dark mark below apex. Hind wing with ill-defined antemedial line; a postmedial rufous line defined by fuscous on inner side and acutely angled at vein 4; a pale marginal line with rufous inside it and three black spots between veins 5 and 2.

*Hab*. Sikhim; Bhután (*Dudgeon*). *Exp*. 26 millim. Type in B. M.

3064 *a*. **Dirades lituralis**, *Warr. A. M. N. H.* (6) xvii, p. 214.

♀. White, slightly irrorated and striated with brown and black. Fore wing with broad blackish medial band, its inner edge indented by an angle at middle, its outer defined by a slightly sinuous rufous line; the apex brown, with a series of four submarginal black specks below it. Hind wing with traces of dark antemedial line, acutely angled at middle, and of a sinuous rufous postmedial line; a brown lunule defined by black below upper tail and brown and black speck below lower.

*Hab.* Khásis. *Exp.* 18 millim.

3066. **Dirades conifera**, 3067. **D. leucocera.** The males have the venation of hind wing as in Sect. I. A.

3070 *a*. **Gathynia fumicosta**, *Warr. A. M. N. H.* (6) xvii, p. 215.

♂. Head, thorax, and abdomen fuscous. Fore wing with the costal area fuscous, the apex ferruginous; a ferruginous fascia below costa; the inner two-thirds of wing greyish, with obscure medial and submarginal curved lines. Hind wing with the costal half whitish tinged with ferruginous, and crossed by oblique medial and postmedial ferruginous lines; the inner half rufous, with the fold pale.

*Hab.* Khásis; Nágas. *Exp.* 22 millim.

Vol. III, p. 136. *Atossa* being preoccupied, read **Nossa**, *Kirby, Cat. Lep. Het.* p. 56 (1892).

## GEOMETRIDÆ.

Vol. III, p. 164. Under **Stegania** insert *Orthobrachia*, Warr. Nov. Zool. 1895, p. 121, for Sect. II.; and *Hydatocapnia*, Warr. Nov. Zool. 1895, p. 143, for Sect. I. A.

3141 *a*. **Stegania micans**, n. sp.

♂. Very dark purplish grey, irrorated with glistening scales; branches of antennæ and a band between their bases ferruginous; anal tufts grey. Fore wing with a patch beyond cell and the costal area ferruginous, with grey striæ towards apex; a dark discocellular striga; indistinct waved ferruginous antemedial and postmedial lines, the latter excurved beyond cell. Hind wing with indistinct waved ferruginous postmedial line. Underside with the basal two-thirds ochreous; fore wing with the apex rufous with dark striæ; the outer margin angled at middle.

*Hab.* Bhután, 2500 feet (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

## Genus LITHINA.

Lithina, *Hübn. Verz.* p. 338 (1818?).

Type, *L. petraria*, Hübn., from Europe.
*Range.* Europe; Kashmir.

Palpi porrect, thickly fringed with hair and reaching just beyond the frons, which is smooth and rounded; antennæ of male thickened and flattened; hind tibiæ dilated, with a fold containing a tuft of long hair; scaling smooth. Fore wing with the apex somewhat produced; vein 3 from near angle of cell; 7, 8, 9, stalked; 10 anastomosing with 11 and then with 8, 9 to form a double areole. Hind wing with vein 3 from near angle of cell; 6, 7 from upper angle.

3184 *a*. **Lithina triumbrata**, *Warr. Nov. Zool.* 1895, p. 131.

♂. Pale ochreous brown. Fore wing irrorated with fuscous; an indistinct somewhat oblique antemedial line with dark spots on median nervure and vein 1; an indistinct postmedial dark line

Fig. 285.—*Lithina triumbrata*, ♂. 1/1.

with short dark streaks on the veins, excurved below costa, incurved from vein 5 to inner margin. Hind wing paler, with traces of medial line; underside with postmedial line, with short dark streaks on the veins.

*Hab.* Gurais Valley, Kashmir. *Exp.* 42 millim.

Vol. III, p. 187. Under **Eurytaphria** insert *Psilotaphria*, Warr Nov. Zool. 1895, p. 154, for Sect. II.

3199 *a*. **Eurytaphria xanthoperata**, n. sp.

♂. Head yellow; thorax, abdomen, and wings brown irrorated with glittering scales, and with a few dark striæ. Fore wing with an indistinct highly curved antemedial dark line; a discocellular speck; a postmedial line excurved from costa to vein 2, then recurved; the costa, margin, and cilia yellow. Hind wing with discocellular speck and indistinct curved postmedial line; the margin and cilia yellow.

♀ with the cilia of both wings, not the margin, yellow.

*Hab.* Ceylon (*Green*). *Exp.* 20 millim. Type in B. M.

3199 *b*. **Eurytaphria pachyceras**, n. sp.

♂. Antennæ thickened and flattened, in female simple.

Head reddish brown; thorax and abdomen dark brown. Fore wing pale brown striated with dark brown; the basal area, the inner side of the postmedial line, and the area near outer angle suffused with fuscous; a dark discocellular speck; an indistinct minutely waved pale postmedial line. Hind wing wholly suffused with fuscous; a dark discocellular speck and minutely waved dark postmedial line; the cilia brown. Underside pale brown, with dark discocellular speck and minutely waved postmedial line to each wing.

♀ without the fuscous suffusion, so that the striation and postmedial lines are more distinct; fore wing with some rufous suffusion on inner side of the postmedial line and a dark spot beyond it below middle.

*Hab.* Sikhim; Bhután, 2500 feet (*Dudgeon*). *Exp.*, ♂ 22, ♀ 24 millim. Type in B. M.

3211. **Spilopera divaricata.** Antennæ of male bipectinate, with short branches; hind tibiæ not dilated. China.

3211 *a*. **Spilopera ochreifusca,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 310.

Fore wing with the outer margin dentate below apex as well as angled at vein 4.

♂. Brownish ochreous irrorated with fuscous. Fore wing with the basal half purplish fuscous, emitting an irregular broad fascia from lower angle of cell to the fuscous marginal area which extends from vein 5 to inner margin, leaving the apex ochreous; an antemedial curved series of dark specks; an oblique diffused waved postmedial band not reaching the costa; a sinuous submarginal series of dark specks. Hind wing with black cell-spot; a diffused fuscous medial band; the marginal area fuscous. Underside with a reddish tinge; a diffused dark postmedial line; a submarginal series of dark specks, with the area beyond them greyish.

*Hab.* Bhután. *Exp.* 34 millim.

3225 = **Zamarada scriptifasciata,** *Wlk. Cat.* xxvi, p. 1566; and omit *translucida*, Moore.

3226. *Z. cosmiaria* = **Zamarada translucida,** *Moore, Lep. Ceyl.* iii, p. 432, pl. 197, fig. 2; *C. & S.* no. 3515. Borneo; Java.

Moore's type is from Java; Walker's *translucida* MS. = **scriptifasciata** from Borneo.

3226 *a*. **Zamarada minimaria,** *Swinh. A. M. N. H.* (6) xvi, p. 293.

♀. Head, thorax, and abdomen grey and brown, the anal tuft pink; wings yellowish hyaline, with a broad marginal leaden-grey band irrorated with silver, inwardly edged by a sinuous rufous line slightly excurved at middle on each wing, and with traces of a rufous submarginal line. Fore wing with some ochreous and

brown on the costa; an annulus at end of cell and two ochreous and rufous lines from cell to inner margin before the middle. Hind wing with an antemedial ochreous and rufous band from cell to inner margin.

*Hab.* Karáchi. *Exp.* 18 millim.

3226 *b*. **Zamarada xanthyala**, n. sp.

♂. Head ferruginous; collar pale yellow; thorax and first segments of abdomen ferruginous and pale vinous, distal part of abdomen ochreous. Fore wing brassy hyaline yellow; costa slightly tinged with ferruginous; a dark discocellular speck; the inner and outer areas broadly vinous, crossed by obscure ferruginous bands, the inner edge of outer area sinuous. Hind wing similar, the inner edge of the outer area more highly sinuous, the hyaline area running out beyond lower angle of cell.

♀ with the inner and outer areas of wings more orange in tone.

*Hab.* Sikhim (*Pilcher*); Sandakan, Borneo (*Pryer*). *Exp.* 30 millim. Type in B. M.

3236 *a*. **Macaria fumipennis**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 310.

♂. Differs from *fasciata* in being much darker; head and antennæ with hardly a trace of fulvous; abdomen slightly tinged with fulvous towards extremity; wings much suffused with fuscous. Fore wing with some fulvous suffusion on costa, expanding into a patch beyond the angle of the postmedial line, with a black patch on it; the medial band of both wings leaden grey instead of white. Hind wing with the black patches beyond the postmedial line large and on olive-brown suffusion. Underside with large patches of fulvous suffusion at base of each wing, extending along costa of fore wing to apex and expanding into a large postmedial patch.

*Hab.* Bhután. *Exp.* 44 millim.

3267 *a*. **Hyposidra polia**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 310.

Grey with a brown tinge, and sparsely irrorated with black scales. Fore wing with an indistinct medial brown band, more prominent in the male than the female and defined outwardly by a sinuous white line angled at vein 4; a pale waved submarginal line with some brown on its inner edge, almost obsolete in female. Underside with indistinct curved postmedial line to each wing.

*Hab.* Ceylon. *Exp.*, ♂ 30, ♀ 40 millim.

## Genus **ORPHNE**.

Orphne, *Hübn. Verz.* p. 314 (1818 ?).

Type, *O. tenebraria*, Esp.

*Range.* Europe; N.W. Himalayas.

Palpi porrect, projecting beyond the frons and clothed with long

hair; frons with a rounded prominence; antennæ of male bipectinate; scaling smooth. Fore wing with the costa arched at base and towards apex, which is rounded; vein 3 from well before angle of cell; 9 given off from 10 and anastomosing with 8, which arises from 7 to form the areole. Hind wing with vein 3 from well before angle of cell; 6, 7 from upper angle; 8 connected with 7 by an oblique bar.

3284 *a*. **Orphne tenebraria**, *Esp. Schmett. Eur.* 51, 6.
Geometra torvaria, *Hübn. Samml. eur. Schmett.* figs. 366–9.
Parascotia olivacea, *Warr. Nov. Zool.* 1895, p. 129.

Dark brown. Fore wing with traces of pale antemedial band; both wings with indistinct dark discocellular spot; an indistinct

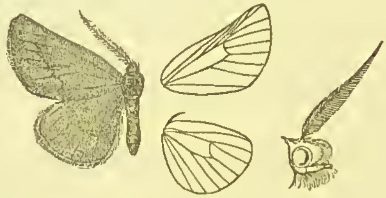

Fig. 286.—*Orphne tenebraria*, ♂. ½.

pale waved submarginal band. Underside with curved white postmedial band to each wing, broadest towards costa of fore wing; the apex of fore wing with some white marks. Abdomen white below.

*Hab.* Europe; Spiti. *Exp.* 38 millim.

Vol. III, p. 228. Under **Leptomiza** insert *Ocœlophora*, Warr. Nov. Zool. 1895, p. 150.

3332 *a*. **Heteromiza leucogonia**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 311.

♂. Antennæ with very short branches. Differs from *cruentaria* in the abdomen having rufous dorsal marks. Fore wing with the basal and inner areas thickly spotted with rufous; a large oblique spot from costa to lower angle of cell and smaller spots below and beyond end of cell; no oblique postmedial line, but the outer area very broadly rufous with irregular inner edge; a large greyish patch on costa before apex, with a black-edged silvery-white claviform mark on its lower edge and two similar specks on outer edge. Hind wing spotted with rufous; large spots in and below end of cell; a large patch at apex conjoined to an irregular patch at anal angle.

*Hab.* Khásis. *Exp.* 48 millim.

3360. Insert (syn.) *Boarmia diffluaria*, Wlk. Cat. xxi, p. 490; C. & S. no. 3319.

Vol. III, p. 257. Under **Boarmia** insert *Blepharoctenucha*, Warr. Nov. Zool. 1895, p. 126, for Group II. Sect. I. D.

3394 *a*. **Boarmia coremiaria**, n. sp.

♂. Antennæ with very long fascicles of cilia. Red-brown irrorated with grey and fuscous. Fore wing with black striæ on costa; obliquely curved ante- and postmedial series of black specks; a black discocellular speck and speck on costa above it; a white speck below vein 5 beyond the postmedial series; traces of a submarginal waved line arising from a black spot below costa; a marginal series of specks. Hiud wing with two medial series of specks; traces of a submarginal waved line; a marginal series of specks. Underside with basal half whitish, crossed by antemedial and medial dark lines, dilated on fore wing; the outer area fuscous, with a whitish spot at apex.

*Hab.* Ceylon (*Green*). *Exp.* 30 millim. Type in B. M.

3397 *a*. **Boarmia thricophora**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 311.

♂. Hind wing with a thick fringe of long hair on inner margin. Pale rufous and grey, slightly irrorated with fuscous. Fore wing with blackish antemedial, medial, and postmedial spots on the costa, from the last of which a curved series of specks arises; an indistinct dentate submarginal line, with blackish patches inside it just above middle and towards inner margin. Hind wing with sinuous medial line; a whitish dentate submarginal line, with blackish patches inside it above middle and towards inner margin; both wings with marginal series of black specks. Underside ochreous, with diffused fuscous on outer area of fore wing except at apex and outer angle; hind wing with a fuscous patch at apex

*Hab.* Sikhim. *Exp.* 28 millim.

3401. *B. comparataria*=**Boarmia exclusaria**, *Wlk. Cat.* xxi, p. 490; *C. & S.* no. 3321; which has precedence. Ceylon.

3454 *a*. **Boarmia leucodontata**, n. sp.

♂. Olive-brown irrorated with fuscous and grey. Fore wing with antemedial black line angled below costa and with a rufous band inside it; a discocellular black spot with traces of a line excurved round it, then oblique; an obliquely curved postmedial line with rufous band beyond it; a dentate white submarginal line, with blackish streaks from it to outer margin; a marginal series of black specks. Hind wing with subbasal black line; a discocellular spot; medial line with rufous band beyond it; the outer area more irrorated with fuscous, with dentate submarginal white line; a crenulate marginal black line. Underside paler olive, striated with black; fore wing with black spot in cell; both wings with large discocellular spot and diffused fuscous submarginal band; the apex of fore wing whitish.

*Hab.* Ceylon (*Green*). *Exp.* 32 millim. Type in B. M.

3487 *a*. **Medasina reticulata**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 311.

♂. White irrorated with brown; abdomen with brown bands; anal tuft ochreous; wings striated with brown. Fore wing with a brown patch at base of costa; two curved antemedial lines; a fascia along median nervure; a medial line conjoined to a discocellular lunule and at inner margin to a postmedial brown band, with a dentate white line on it which again is conjoined to a highly irregular dentate submarginal line. Hind wing with oblique antemedial line; a discocellular lunule; a postmedial band from cell to inner margin, with a white line on it; an ill-defined submarginal line; both wings with a fine brown marginal line.

*Hab.* Sikhim. *Exp.* 30 millim.

3583. *Rambara ochreicostalis* = **R. luminaria**, *Hübn. Zutr.* iv, p. 35, figs. 757, 758, and *Zanclopteryx zincaria*, Guen. Phal. ii, p. 16.

3588. Insert (syn.) *Camptogramma blitearia*, Wlk. Cat. xxvi, p. 1716; C. & S. no. 3894.

Vol. III, p. 335. Under **Dysethia** insert *Dysethiodes*, Warr. Nov. Zool. 1895, p. 106, for Sect. I. B.

3596 *a*. **Dysethia longiramus**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 312.

♂. Antennæ bipectinated with long branches to three-fourths length. Rufous brown. Fore wing slightly suffused with grey; an indistinct diffused dark rufous antemedial line. Hind wing paler, with indistinct cell-specks; the marginal area of both wings slightly darker. Underside brownish ochreous; fore wing with the costa fulvous; the outer area slightly darker; hind wing with black cell-speck and traces of a postmedial curved line.

*Hab.* Sikhim. *Exp.* 28 millim.

3617 *a*. **Eubolia roseicilia**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 312.

♂. Pale yellowish grey irrorated with fuscous; palpi and legs tinged with crimson. Fore wing crossed by seven or eight nearly straight indistinct dark lines; a submarginal series of indistinct white spots, the three below apex with crimson on their edges; the cilia crimson. Hind wing white, with the cilia crimson. Underside of fore wing suffused with fuscous, except the marginal area; hind wing with dark discocellular speck.

*Hab.* Bhután. *Exp.* 34 millim.

P. 346. Under **Phibalapteryx** insert *Pseudocollix*, Warr. Nov. Zool. 1895, p. 118.

P. 349. Under **Cidaria** insert *Hysterura*, Warr. Nov. Zool. 1895, p. 115.

3643. Omit *cingala*, Moore, the species standing as **Cidaria multilinea**, *Hmpsn*.

3673 *a.* **Cidaria griseiviridis,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 312.

♂. Antennæ bipectinate, with short stiff branches bearing fascicles of cilia. Head, thorax, and abdomen green and black. Fore wing with numerous indistinct waved black lines; the basal area pale rufous and green; the medial area fuscous, with a large patch of grey suffusion on the disk beyond cell bounded by the postmedial line, which is slightly angled at vein 6 and very strongly at vein 4, then highly crenulate to inner margin; a black cell-speck; outer area green, with a large rufous patch on costa beyond the postmedial line; a blackish subapical patch; some rufous streaks on the veins and blackish patches on margin. Hind wing fuscous, with traces of cell-speck and waved lines, which are more distinct on underside.

*Hab.* Bhután. *Exp.* 28 millim.

3673 *b.* **Cidaria cingala,** *Moore, Lep. Ceyl.* iii, p. 489, pl. 207, fig. 10; *C. & S.* no. 3896.

Differs from *griseiviridis* in the male having the branches of antennæ long; hind wing darker fuscous brown.

*Hab.* Ceylon. *Exp.* 24–30 millim.

3679 *a.* **Cidaria plumbeotincta,** *Swinh. A. M. N. H.* (6) xvi, p. 297.

♂. Head and thorax black and leaden grey; abdomen rufous, with some leaden grey on dorsum. Fore wing pale rufous, with the basal, costal, and apical areas black suffused with leaden grey; traces of numerous waved lines, of which some of the postmedial form a rufous and white band on the apical patch. Hind wing fuscous, with the cilia and a patch at anal angle rufous. Underside fuscous irrorated with grey.

*Hab.* Khásis. *Exp.* 22 millim.

3680. Insert (syn.) *Coremia buda,* Swinh. A. M. N. H. (6) xvi, p. 297.

3704. *Larentia seriata,* Moore, = **L. affinis,** *Moore, Lep. Atk.* p. 277; *C. & S.* no. 3837; which has precedence.

3711. Rename **Larentia fulvimacula,** nom. nov., and omit the locality Sikhim.

3730. Insert (syn.) *Amnesicoma simplex,* Warr. Nov. Zool. 1895, p. 113.

3731. Rename **Photoscotosia metachryseis,** nom. nov.; the male sometimes has the white patch.

3731 *a.* **Photoscotosia obliquisignata,** *Moore, P. Z. S.* 1867, p. 657; *C. & S.* no. 3823.

♀. Differs from *metachryseis* in being much redder brown. Fore wing with the waved lines prominent and not interrupted; the antemedial line slightly angled on median nervure; the postmedial

line not bent outwards beyond lower angle of cell and without white specks on the veins; the discocellular mark elliptical and oblique; no oblique medial patch from costa; the apical streak short; the submarginal line prominent. Hind wing with the whole costal area orange.

*Hab.* Sikhim. *Exp.* 52 millim.

3740 *a.* **Callabraxas trigoniplaga,** *Hmpsn. Trans. Ent. Soc.* 1895, p. 312.

♂. Fore wing with a tuft of long hair below base of median nervure; hind wing with vein 5 from below middle of discocellulars, which are angled. Head black; thorax and abdomen orange, with paired dorsal black spots. Fore wing with the basal area rufous, with indistinct grey lines on it and waved edge; the rest of the wing grey, with a white medial band forked and enclosing a large triangular rufous patch from costa to lower angle of cell, and a small spot on inner margin; a lunulate white submarginal line; the area at outer angle rufous. Hind wing white, with a dark patch at lower angle of cell; some dark marks near middle of inner margin; a dark patch at anal angle, with a waved white line on it.

*Hab.* Nepal. *Exp.* 52 millim.

3752 *a.* **Gymnoscelis polyodonta,** *Swinh. A. M. N. H.* (6) xvi, p. 296.

♂. Head, thorax, and abdomen clothed with black, rufous, and pale scales; wings pale, variegated with red-brown and crossed by very numerous minutely dentate black lines, of which the ante- and postmedial are slightly the most prominent, the latter angled at vein 6 and more prominently at vein 4 of each wing.

*Hab.* Khásis. *Exp.* 26 millim.

3759. *C. deletarius* = 3761. **Chloroclystis filicata.**

3759 *a.* **Chloroclystis rufinigra,** *Swinh. A. M. N. H.* (6) xvi, p. 296.

♂. Pale rufous; the head, collar, 1st segment of abdomen above, and the terminal segments black; wings with traces of numerous waved lines. Fore wing with the basal costal area black; a quadrate black spot in end of cell and another beyond the end, met by some black suffusion irrorated with grey from the apex; postmedial and submarginal series of black specks, the latter with a larger spot at middle. Hind wing with a black mark near base of inner margin; a discocellular lunule; indistinct medial series of specks; a submarginal series and a very large black patch with some white specks on it from anal angle to middle of outer area.

*Hab.* Khásis. *Exp.* 22 millim.

3763 *a.* **Chloroclystis subtrigalba,** *Swinh. A. M. N. H.* (6) xvi, p. 294.

♂. Pale rufous suffused with grey; head and terminal half of abdomen black. Fore wing with the basal half of costa black

suffused with grey; medial and submarginal black patches on costa; traces of numerous pale waved lines; a few black scales on veins of outer area; a black patch beyond cell, with the indistinct postmedial line curved round it; a submarginal waved grey line, with fuscous patches on it at middle and outer angle. Hind wing with numerous indistinct waved lines; a medial black patch on inner margin and a smaller patch at anal angle. Underside of fore wing fuscous, with indistinct angled postmedial band outlined with whitish; hind wing white, with angled antemedial line and postmedial band.

*Hab.* Khásis. *Exp.* 16 millim.

3767 *a.* **Chloroclystis sinuosa,** *Swinh. A. M. N. H.* (6) xvi, p. 295.

♂. Pale fuscous suffused with grey. Fore wing with indistinct waved subbasal, antemedial, and medial lines; a prominent black postmedial line highly angled at vein 4. Hind wing with postmedial line excurved below costa and highly excurved between veins 4 and 2; both wings with the marginal area darker fuscous. Hind wing with the outer margin much excised from veins 6 to 4, then crenulate to anal angle.

*Hab.* Khásis. *Exp.* 12–15 millim.

3769 *a.* **Chloroclystis acygonia,** *Swinh. A. M. N. H.* (6) xvi, p. 295.

♂. Fuscous brown, slightly irrorated with black and with a faint rufous tinge. Fore wing with indistinct subbasal and curved antemedial lines; both wings with prominent black white-edged postmedial line, produced to a very acute angle at vein 4; traces of a pale waved submarginal line.

*Hab.* Khásis. *Exp.* 18 millim.

3774 *a.* **Chloroclystis nigrilineata,** n. sp.

Grey, with a slight olive-green tinge. Fore wing of male with the dilation of costa and fringe of hair slight and placed beyond the middle; a black spot near base of costa; waved black ante- and postmedial lines, the latter angled at vein 4; a minutely dentate whitish submarginal line. Hind wing with waved black ante- and postmedial lines, the latter indented at vein 5; a minutely waved whitish submarginal line. Underside with diffused pale fasciæ in the interspaces.

*Hab.* Ceylon (*Green*). *Exp.* 18 millim. Type in B. M.

3785 *a.* **Eupithecia melanolopha,** *Swinh. A. M. N. H.* (6) xvi, p. 296.

♂. Fuscous and pale rufous; abdomen with some white on basal segments. Fore wing with the base of costa dark rufous; a large medial subtriangular black patch from costa, embracing the tuft of black scales; postmedial and submarginal slightly sinuous white lines, the former double near inner margin and the latter expanding into a white spot; a small patch of rufous suffusion on costa inside the submarginal line, and the whole area near outer

angle dark rufous. Hind wing fuscous; medial and submarginal white lines prominent towards inner margin; the inner area irrorated with dark rufous and a prominent spot on inner margin between the two lines.

*Hab.* Khásis; Ceylon. *Exp.* 18 millim.

3788 *a*. **Eupithecia nigrinotata**, *Swinh. A. M. N. H.* (6) xvi, p. 296.

♂. Pale rufous brown; abdomen with some black at base. Fore wing with large black patches on costa at base, before middle, and one at middle, forming with the large cell-spot a triangular mark; traces of waved lines. Hind wing with some fuscous on base of inner area; a diffused fuscous medial line and a small spot near anal angle.

*Hab.* Khásis. *Exp.* 16 millim.

3795 *a*. **Eupithecia chlorophora**, *Swinh. A. M. N. H.* (6) xvi, p. 295.

♂. Head and thorax pale; the palpi, collar, and patagia bright green; abdomen grey-brown, with the dorsal tufts and terminal segments fulvous. Fore wing with the base green, with white spots on its outer edge; the rest of the wing brown; several antemedial waved black lines, of which the two outer are angled and filled-in with green below costa; a black cell-spot followed by three waved lines; a sinuous white postmedial line excurved from vein 6 to 3, with some waved lines beyond it and met by a bright green fascia from apex. Hind wing pale fuscous, with traces of four lines which are more prominent on underside.

*Hab.* Bhután; Khásis. *Exp.* 20 millim.

3812 *a*. **Sauris interruptata** = *triseriata* ♀ (nec ♂) is a distinct species belonging to Sect. III. C, but without the tuft on hind tibiæ.

3813. **Sauris lineosa** = 3807, *S. normis*, and belongs to Sect. I.

3815. **Sauris proboscidaria.** ♂ without the long abdominal and tibial tufts of hair.

3818 *a*. **Hydrelia rufinota**, n. sp.

Grey with a slight lilacine tinge. Fore wing with traces of numerous waved lines; rufous marks on costa at the medial and postmedial lines, the last with series of dark specks on it, and a rufous and fuscous mark at middle. Hind wing with traces of numerous waved lines on outer half.

*Hab.* Sikhim, 12,000 feet (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

3831 *a*. **Hydrelia cingulata**, n. sp.

♀. Head, thorax, and abdomen fuscous irrorated with white. Fore wing grey; a curved antemedial dark line followed by a rufous band; a rufous postmedial band with waved dark edges; a submarginal minutely waved rufous band; a series of dark

marginal marks. Hind wing whitish; an indistinct sinuous antemedial line; a double waved postmedial line; a submarginal line and a marginal series of specks.

*Hab.* Yatong, Sikhim, 10,000 feet (*Bingham*). *Exp.* 32 millim. Type in B. M.

SECT. IV. Fore wing with the outer margin slightly excurved at middle. Hind wing with it excised below apex.

3831 *b.* **Hydrelia crocearia**, n. sp.

♂. Differs from *pictaria* in being yellower. Fore wing with no silvery markings, the basal patch short and even, no cell-spot; a lunulate brown patch beyond the cell from below costa to vein 3; two waved submarginal brown lines. Hind wing yellow, whitish at base; antemedial, medial, and two submarginal brown lines.

*Hab.* Yatong, Sikhim, 10,000 feet (*Dudgeon*). *Exp.* 30 millim. Type in B. M.

3831 *c.* **Hydrelia sanguiflua**, n. sp.

Bright yellow; head, thorax, and abdomen suffused with pink. Fore wing suffused with pink and with patches of purple to beyond middle of costa and outer angle; the apical area pink, with a diffused purplish sinuous line on its inner edge. Hind wing with traces of waved antemedial and medial fuscous lines; the outer area with irregular patches of pink and purple.

*Hab.* Yatong, Sikhim, 10,000 feet (*Bingham*). *Exp.* 28 millim. Type in B. M.

Vol. III, p. 415. Under **Venusia** insert *Discoloxia*, Warr. Nov. Zool. p. 105, for Sect. II.

3848 *a.* **Cambogia phœnicosoma**, *Swinh. A. M. N. H.* (6) xvi, p. 294.

Hind wing with veins 3 and 4 well separated at origin.

♂. Head, thorax, and abdomen grey and pink. Fore wing with the base pink, its outer edge much excurved in cell; an antemedial grey-green band with waved edges; a very wide medial pink band with sinuous outer edge, running out to near the margin between veins 5 and 2 and followed by an obscure fuscous line; a black discocellular lunule and indistinct waved postmedial line; a series of black marginal specks. Hind wing pink; the outer area grey-green; the pink area bounded by a sinuous white line angled at vein 4; a black discocellular speck and traces of two medial waved lines.

*Hab.* Khásis. *Exp.* 22 millim.

3858. Insert (syn.) *Craspedia rufistigma*, Warr. Nov. Zool. 1895, p. 93.

3859. Insert (syn.) *Craspedia erubescens*, Warr. Nov. Zool. 1895, p. 92.

3860. *C. opsinaria*=**Craspedia patularia**, *Wlk. Cat.* xxxv, p. 1633; *C. & S.* no. 3944. (See 3883.) Sikhim; Nilgiris.
And insert (syn.) *Craspedia rufilinea*, Warr. Nov. Zool. 1895, p. 92.

3861. Insert (syn.) *Craspedia sordida*, Warr. Nov. Zool. 1895, p. 93.

3883. Omit from synonymy *Acidalia patularia*, Wlk.

3907 *a*. **Acidalia ptyonopoda**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 313.

♂. Mid tibiæ fringed with long pink hair, especially towards extremity; hind tibiæ dilated, with a fold and immensely developed tuft of pink hair, but with no tuft from extremity and without spurs.

Pale ochreous; head black; the wings with black cell-specks; two indistinct waved antemedial lines, two postmedial and one submarginal

*Hab.* Bhután. *Exp.* 20 millim.

3909 *a*. **Acidalia phœnicoptera**, n. sp.

♂. Hind tibiæ and tarsi very much thickened, flattened, and spirally twisted, the joints invisible; hind wing elongate triangular, the anal two-thirds of outer margin being folded over on underside.

Head and thorax greenish-ochreous; abdomen suffused with purple-red above. Fore wing purple-red, the basal half of costal area ochreous, with a few red scales; waved antemedial, medial, and submarginal ochreous bands. Hind wing with straight oblique antemedial ochreous band and waved postmedial band.

*Hab.* Ceylon (*Green*). *Exp.* 16 millim. Type in B. M.

3911 *a*. **Acidalia gemmaria**, n. sp.

♀. Frons dark brown; vertex of head chestnut; thorax olive; abdomen chestnut. Fore wing olive, with shining scales and a few black specks; a bright red submarginal band from vein 5 angled outwards on vein 3, then bent inwards and filled-in with bright purple towards inner margin. Hind wing with bright red discocellular spot and curved postmedial line, followed by a broad bright purple band with minutely waved outer edge; some grey suffusion on margin.

*Hab.* Puttalam, Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

3923 *a*. **Chrysocraspeda phœnicozona**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 313.

♂. Antennæ minutely ciliated; hind tibiæ short and thick, with tufts of short hair from extremity; the tarsus curved and apparently unjointed, with thick tufts of hair from inner side. Fore wing with veins 3, 4 stalked; hind wing with the underside entirely clothed with rough hair and with the inner margin fringed with long hair.

Head and thorax olive-grey, the frons and collar dark purple; abdomen groy tinged with purple. Fore wing olive-grey, with some purple specks on costa; the basal half with numerous

indistinct waved purple bands and lines not reaching the costa; a broad purple marginal band sending a point inwards on vein 5 and with some grey on it at apex. Hind wing olive-grey, almost entirely covered by ill-defined waved purple bands.

*Hab.* Sikhim; Khásis. *Exp.* 20 millim.

3924. *Ephyra invexata* = E. (*Thalera*) **albannularia**, *Wlk. Cat.* xxii, p. 554; *C. & S.* no. 3474—which has precedence.

3926. Omit from synonymy *Anisodes pallida*, Moore.

3932. *A. intermixtaria* = **Anisodes pallida**, *Moore*, *Lep. Ceyl.* iii, p. 445, pl. 201, fig. 11; *C. & S.* no. 3575.—The Khási form *intermixtaria* has the dentate fuscous lines more prominent than in the smaller Southern form.

*Hab.* Khásis; Nilgiris; Ceylon; Borneo. *Exp.* 26–30 millim.

Vol. III, p. 452. Under **Erythrolophus** insert *Craspediopsis*, Warr. Nov. Zool. 1895, p. 93, for Sect. II. B.

3953. Insert (syn.) *Craspediopsis bimaculata*, Warr. Nov. Zool. 1895, p. 94.

3957 *a*. **Rhodostrophia semipurpurascens**, n. sp.

Antennæ of male minutely serrate and fasciculate.

♂. Rufous; head with the vertex white; thorax purplish. Fore wing with the basal two-thirds purplish fuscous, with fine pale striæ and sinuous outer edge; a waved postmedial purplish line angled outwards below apex and with an oblique mark from its angle to outer margin; the median nervules and outer angle purplish. Hind wing redder, with traces of sinuous ante- and postmedial dark lines; a black cell-speck, short purplish streak at anal angle, and a marginal line.

*Hab.* Bhután, 6000 feet (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

3958. Insert (syn.) *Rhodostrophia curvata*, Warr. Nov. Zool. 1895, p. 98.

3964. Insert (syn.) *Rhodostrophia olivacea*, Warr. Nov. Zool. 1895, p. 99.

3966. Insert (syn.) *Rhodostrophia bicolor*, Warr. Nov. Zool. 1895, p. 98.

The form *bicolor* has the band of fore wing bright pink in male, the whole fore wing suffused with pink in female; hind wing with the ground-colour pale yellow.—Kashmir.

Vol. III, p. 458. Under **Timandra** insert *Gnamptoloma*, Warr. Nov. Zool. 1895, p. 95, for Sect. II.

3973. *Timandra mundissima* = T. (*Thalassodes*) **chlorozonaria**, *Wlk. Cat.* xxii, p. 554; *C. & S.* no. 3452—which has precedence.

3995 *a*. **Euschema flavidiscalis**, *Warr. Nov. Zool.* 1895, p. 86.

♂. Head black and white; collar yellow; thorax purple and white; abdomen yellow. Fore wing deep purple, with pale blue patch in cell met by an oblique fascia from base of inner margin; a curved medial series of three blue patches merging into a white patch on inner margin; a discocellular band; an oblique series of quadrate blue spots, the two between veins 3 and 5 displaced towards the margin. Hind wing golden yellow, with an oblique basal purplish band; a white medial costal patch; a discocellular purple patch; the apical area purple, with pale blue spots beyond upper angle of cell and four submarginal lunules; a postmedial purple band from vein 3 to inner margin; a submarginal series of purple spots from vein 4 to anal angle.

*Hab.* Burma. *Exp.* 80 millim.

4029 *a*. **Pseudoterpna hypoglauca**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 313.

Olive-yellow, thickly irrorated and striated with fuscous. Fore wing with traces of waved ante- and postmedial lines with black specks on the veins, the former with an obscure rufous patch inside it on inner area, the latter bent inwards at vein 2 and with obscure rufous patches beyond it; traces of a submarginal series of specks and more prominent marginal series. Hind wing with obscure discocellular mark; traces of a waved postmedial line with black specks on the veins and obscure rufous patches beyond it; a marginal series of black specks. Underside grey, thickly irrorated with fuscous and with prominent black cell-spots.

*Hab.* Dalhousie. *Exp.* 60 millim.

4039. Insert (syn.) *Thalassodes fimbriaria*, Wlk. Char. Undescr. Het. p. 97; C. & S. no. 3456.

4047 *a*. **Agathia gigantea**, *Butl. A. M. N. H.* (5) vi, p. 217.
Agathia diversiformis, *Warr. Nov. Zool.* 1894, p. 388.

Differs from *codina* in the green area of the fore wing sending a tooth into the postmedial band, which is much browner, between veins 3 and 4. Hind wing with brown patch on middle of inner margin; the inner edge of the postmedial brown area dentate from costa to vein 3, with no white beyond it on costa, and only a little green inside the margin, rather wider at apex. Underside with fuscous inner edge to the postmedial striated area, widening to costa of each wing and angled at vein 4 of fore wing.

*Hab.* Sikhim; Assam; Sumatra; Java. *Exp.* 54 millim.

4059. Omit *Thalassodes leucospilota*, Moore, Lep. Ceyl. iii, p. 427, pl. 194, fig. 4; C. & S. no. 3461; and the word '*leucospilota*' after Ceylon form. (See 4107.)

And insert *Thalera costipunctata*, Moore, Lep. Ceyl. iii, p. 428, pl. 195, fig. 4; C. & S. no. 3477. (See 4134.)

4059 *a*. **Hemithea alboundulata**, *Von Hedeman, Hor. Ent. Ross.* xiv, p. 511, pl. 3, fig. 8.

Differs from *tritonaria* in being blue-green. Fore wing with slight dark cell-speck; both wings without the dark marginal line; the white specks slight; the cilia green.

*Hab.* Amur; China; Khásis. *Exp.* 32 millim.

## Genus AFRENA.

Afrena, *Hmpsn. Trans. Ent. Soc.* 1895, p. 314.

Type, *A. esmeralda*, Hmpsn.

*Range.* Assam; Tenasserim.

Palpi porrect, the 2nd joint reaching well beyond the frons and thickly scaled, the 3rd long; frons smooth; antennæ of male bipectinated with short branches for two-thirds length; abdomen without dorsal tufts; hind tibiæ with two pairs of spurs. Fore wing somewhat acute at apex; vein 3 from angle of cell; 6, 7, 8, 9, 10, 11 stalked. Hind wing with the frenulum absent in female; the outer margin angled at vein 4; veins 3, 4 from lower angle of cell; 4, 5 from upper angle.

4070 *a*. **Afrena esmeralda**, *Hmpsn. Trans. Ent. Soc.* 1895, p. 314.

Brilliant emerald-green; palpi black and grey; antennæ ochreous. Fore wing with the costa whitish speckled with black; an indistinct slightly oblique yellowish-green antemedial line; two

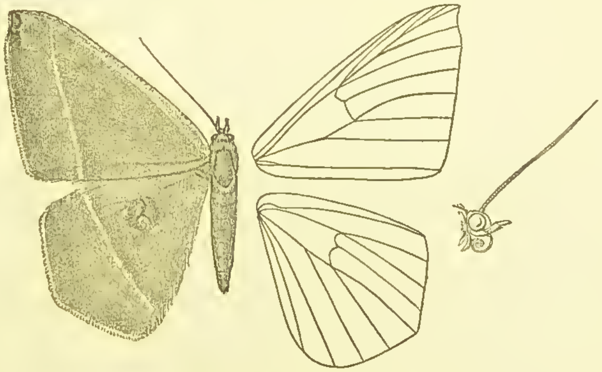

Fig. 287.—*Afrena esmeralda*, ♀. $\frac{1}{1}$.

brown specks on discocellulars; a straight oblique pale postmedial line with yellowish-green inner edge; a chestnut apical patch. Hind wing with a pale chestnut patch at end of cell on which the discocellulars show as a dark bracket-shaped mark; a pale postmedial straight line with yellowish-green inner edge; cilia of both wings white at tips. Underside suffused with white.

*Hab.* Khásis; Tenasserim. *Exp.* 62 millim.

Vol. III, p. 498. Omit "Sect. I." &c. to "angle of cell."

4080 *a*. **Euchloris rectifasciata**, n. sp.

Head orange fulvous; fore legs crimson in front; thorax and abdomen whitish; wings yellow-green. Fore wing with the costa white; a straight somewhat oblique postmedial white band; a marginal white band. Hind wing with straight white band just beyond the middle and a marginal band; underside white.

*Hab*. Puttalam, Ceylon (*Pole*). *Exp*., ♂ 14, ♀ 20 millim. Type in B. M.

Vol. III, p. 500. Transfer nos. 4085–89—**E. pyrrhogona, subtiliaria, signifera, ovifera,** and **efformata**—to **Eucrostes**, p. 504, in which genus the first two will form Sect. II., primarily distinguished by the length of palpi, the last three being typical.

4107. *T. albomaculata*=**Thalassodes leucospilota**, *Moore, Lep. Ceyl.* iii, p. 427, pl. 194, fig. 4; *C. & S.* no. 3461.

4115 *a*. **Thalassodes nigrifrons**, n. sp.

♂. Yellow-green with slight grey suffusion; palpi, a line behind the eyes, vertex of head, and shafts of antennæ white; frons black-brown; fore wing with the costa ochreous speckled with black; both wings with traces of waved green ante- and postmedial lines. Underside whitish.

*Hab*. Puttalam, Ceylon (*Pole*). *Exp*. 32 millim. Type in B. M.

4134. Omit from synonymy *Thalera costipunctata*, Moore.

## PYRALIDÆ.

4335. *Heterographis unipunctella*=4331. **H. suboblitella.**

4436. *Parorthaga euryptera*=**Arnatula melanophia**, *Stgr. Isis.* v, pl. iii, fig. 22, & vi, p. 78, Siberia; which takes precedence for both genus and species.

4649. *Cataclysta mesorphna*=4651. **C. blandialis.**

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